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The spontaneous speech of a six-year-old bilingual child was analyzed for this study. The child has lived in the United States and English is her primary language but her parents speak only French in the home and she has spent several months in France during three visits there. The data used in this study were collected in the child's home by her bilingual parents during the period when she was six years and three months to seven years and two months of age. Grammatical and lexical interference was shown to occur in both languages: English influencing French in word order and stress, and French influencing English in the category of gender. The child does not, however, show any evidence of phonological interference in either language. Examples are given of the use of loanshifts, loanwords, syntactic substitutions, word order, agreement of gender and number, stress, and extension of grammatical morphemes. The author concludes that, in spite of considerable lexical and grammatical interference, there is no evidence of a merger of lexicons or grammatical structures. The child has not evolved a lexicon or grammatical structure compounded of French and English elements. The author also feels that these observations illustrate the validity and completeness of the theoretical framework developed by Uriel Weinrich in "Languages in Contact" (New York, 1953). (JD)

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LEXICAL AND GRAMMATICAL INTERFERENCE IN THE SPEECH OF A BILINGUAL CHILD

by Paul F. Kinzel

UNIVERSITY OF WASHINGTON
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AND
LANGUAGE LEARNING
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INTRODUCTION

0. Introduction. Included in this section are discussions of Purpose and scope (0.1), Biographical notes on the bilingual subject (0.2), Method and arrangement (0.3), and Presentation of examples (0.4).

0.1. Purpose and scope. One important facet of the study of languages in contact is the collecting of reliable data where primary focus is upon those specific points in the languages involved where individual bilingual speakers experience interference.

This need is underscored by Haugen (1953, 11): "Only by observing closely the behavior of bilinguals, and giving them the same kind of detailed and objective study that other speakers have received can we draw valid conclusions about the theories that have been advanced to account for the many strange phenomena of interlingual imitation." In a parallel vein, Weinreich (1953, 44) observes: "For an analysis that can do justice to the complexity of the linguistic facts, the data must be obtained, first and foremost, from the flowing speech of bilinguals in the natural setting of language contact; the usual sort of evidence, taken from relatively well established languages, cannot be a substitute."

The purpose of this study in bilingualism was formulated in part by combining these ideas expressed by Haugen and Weinreich: that by observing, objectively studying and analyzing the flowing speech of a bilingual, data would be obtained which, together with that of other studies, could be used to extend our knowledge of the various ways in which languages may interact.

The data on which this study is based were obtained in daily observation of the active speech of a six-year-old, English-French bilingual child who experiences interference in both her languages. While it is entirely possible that an adult bilingual could be completely unaware of interference between his two linguistic systems, our data may have permitted a more candid picture of languages in contact and may more nearly represent "actual original interference, not regulated by previous usage," as suggested by Haugen (1958, 777), since the child had no opportunity to hear mixed speech.

The scope of this study is limited to the description of the occurrence of what has been termed lexical and grammatical interference in the speech of a bilingual child, where interference is characterized as any deviation from generally accepted adult-monolingual lexical and grammatical norms of English and French which is attributable to the child's active use of the two languages.

We are not concerned here with mistakes in either language which are not attributable to knowledge of the other. For example, the child frequently says _on poudra_ 'we will be able' instead of _on pourra_ by analogy with _on voudra_. She has also been heard to say _Je serai très malcontente_ 'I will be very displeased' where *malcontente* occurs instead of *mécontente* on the analogy *heureuse* : *malheureuse* = *contente* : *malcontente*. Similar analogical mistakes also occur in the child's English. She has been heard to say, for example, *I lost my strongness* and *He examinated her*.

Sometimes it is not clear whether the deviation occurs because of a 'monolingual mistake' or whether the other language has interfered. For example, when the child said *J'aime ce* /sã/ 'I like that smell', it is uncertain whether the source is purely French (i.e., /sã/ occurs because she knows such related forms as *chanter* /šãte/ 'to sing' : *chant* /šã/ 'song', therefore *sentir* /sãtir/ 'to smell' : /sã/ 'smell'), or English (i.e., *I smell* : *Je sens* = *that smell* : *ce* /sã/).

Unfortunately, regular records of the child's speech were not begun early enough to be able to report on developmental aspects of bilingualism[1] such as types of interference which may have occurred earlier than others or the persistence or extinction of various types. What evidence we do have is fragmentary and impressionistic. For example, at approximately 3;6[2] she frequently said *Je Ejump* 'I'm jumping' and *Nous Ejump* + *ons* /õ/ 'We're jumping', but no interference involving the overt transfer of French verb morphology was heard during the period in which her speech was under daily observation.[3]

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[1] See Leopold's four volume study (1939-49).

[2] 3;6 means during the month following completion of three years, six months. This system is used throughout the study to denote the child's age.

0.2. *Biographical notes on the bilingual subject.*

The following personal data are considered relevant to the study as a whole.

Anne Kinzel, speaker of English and French, was born April 22, 1956, in Fresno, California. She is an only child. Her mother is a native speaker of French (educated Parisian dialect) whose English is very good, but who has considerable phonological interference. Her father, the author of this study, is a native speaker of Western American English whose French is near-native.

In the home, the parents speak French to each other and to the child unless monolingual speakers of English are present. However, no attempt has ever been made to force the child to try to speak only French with her parents.

[3] The utterances *Ils*/praktis/? (6;6) 'Are they practicing?' and *Je sais* /praktise/ (6;11) 'I know how to practice' are the only examples of gallicized verb forms observed during this period. Cf. the noun /praktis/ in example 5 in section 1.21.(i).

In her early speech, Anne showed that she had divided her interlocutors into two categories: her mother and father in one (French or English) and all others in a second category (English). Upon arriving in France at age 2;0, she spoke English to her grandparents for a period of three or four days, even to the extent of translating remarks made to her by her mother.

When she returned to the United States at 2;4, she had completely forgotten English. It was quickly relearned, however, and the two languages developed side by side. After 3;6 English began to assume a dominant role.

Anne returned to France for a period of three months at 4;10. For the first two weeks, she complained of not always understanding when exposed to groups of French speakers and occasionally addressed her mother in English when they were alone. She refused, however, to speak English to Americans who visited her grandparents' home, pretending not to understand their English.

Upon her return to the United States, her French was indiscernible from that of a monolingual French child. She had not forgotten English to any appreciable extent, but during the first few weeks following her return, English expression was somewhat halting.

In the months that followed, especially upon learning to read in English and in attending kindergarten, her English became clearly dominant, and she entered into the period of greatest linguistic interference in speaking with her parents. Her English outside the home, however, as far as could be observed, was apparently that of a monolingual American child.

At 7;1 Anne again returned to France for seven weeks. This short visit had the effect of reducing interference in French to such an extent that it became impossible to secure more data.

Anne's progress in school is good and no problems have developed which might be attributed to her bilingualism. Her chief interest is reading. Her verbal expression, at least as evidenced by her grades in school, has always been equal, if not superior to that of most other children her age.

Her speech has always been very comprehensible with no type of stuttering or other speech defect. All phonemes of both languages had been acquired by the time regular observation of her speech was begun. While no systematic study of phoneme acquisition is possible because of lack of data, it is known that the last French phoneme to be acquired (at approximately 5;0) was /ü/ for which /u/ had formerly been substituted. The last English phoneme to be acquired was /θ/ (at approximately 3;6) for which /s/ had formerly been substituted. She became aware of the possibilities of phonemic substitution for comic effect at 7;4. This was apparently from sources outside the home, for she does not consider her mother's phonemic substitution in English unusual.[4]

Anne has a concise and very personal concept of her dual nationality: in the United States, she is American; in France, she is French. She seems quite proud of this dual nationality and of being bilingual. None of the symptoms of rejection of bilingual status reported by Bossard (1945) in his investigation based on the case histories of seventeen bilinguals has been observed in the child's behavior. In kindergarten, perhaps because she was not the only bilingual child in the class and because her teacher spoke Spanish and Tagalog, she readily consented to the telling of stories in French, following up with English versions. She has known a relatively large number of bilingual children whose second languages are Armenian, Danish, French, German, Hungarian, Italian, and Spanish. In her second grade class, one of her two closest friends is an active speaker of German, the other understands, but does not speak Danish.

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[4] Only two apparently unconscious imitations of her mother's occasional 'spelling pronunciation' have persisted: salmon /salmən/ and clothes /kloðəz/. These alternate with /sæmən/ and /kloðz/.

She occasionally visits the school where her mother teaches French to children and quite obviously enjoys participating in the lessons. This, and the fact that she rather pointedly spoke French to her mother during the weekly visit of her class in the school library where her mother assists, lead us to believe that she sees a positive status marker in her bilingualism.

Since 7;7 she has been learning Spanish during two one-half hour periods each week in a group with four girls of her age. She seems to approach this in much the same way as a monolingual child, although her teacher, who has had considerable training and experience in teaching Spanish to children, has remarked that Anne, in contrast to some monolingual children, shows no resistance to naming familiar objects in a new idiom. Her pronunciation of Spanish seems to be better than that of the others in the group. What phonological substitution occurs in her Spanish seems to stem from French influence rather than English. For example, she regularly identifies the trill and flap /r/ of Spanish with the French uvular /r/ rather than with the American retroflex /r/.

At present (8;2), English is clearly Anne's language of greatest fluency, and yet, there is a noticeable lack of interference when she is speaking French. This seems to suggest that while there can be differences in levels of fluency in the languages spoken by a bilingual, there need not be intrusion upon the secondary language by the primary.

0.3. Method and arrangement. The data upon which this study is based were collected[5] during the period between 6;3 and 7;2, mainly in conversations in the home where, due to the bilinguality of the interlocutors,[6] interference could occur freely in the child's speech and yet not hamper communication.

In order to compile a record of interference, notes were made immediately upon hearing any deviation from generally accepted norms of 'correctness' in either language. Later, then, these notes were consulted in deciding whether the deviation was attributable to bilingualism or whether it was in the nature of a simple mistake that a monolingual child could make.

Care was taken that the child not be aware that her speech was being studied. When notes were taken in her presence, she occasionally asked why this was being done, but seemed satisfied with casual remarks about class preparation, etc. This lack of awareness, it is felt, safeguarded the element of spontaneity in her speech that might have otherwise been lost, or at least jeopardized. The decision not to call attention to interference was made, in effect, before this study was begun. It was realized that because of the overwhelming influence of the English-speaking culture in which she was to live, French

[5] The child's mother assisted in the collection of the data. She would note and record an example to be discussed later with the author.

[6] See Weinreich (1953), 81.

would unquestionably be the child's secondary language. Interest and relative proficiency in French on the child's part were to be maintained, in principle, by the parents' use of that language in the home, as frequent visits to France as possible and the introduction of reading at an appropriate time.

The decision not to call attention to interference, of course, made it difficult to secure a repetition of an instance of interference. Occasionally this was tried by pretending not to have heard, but without much success, for the child would rephrase her statement in such a way that no interference was manifested, or would switch to her other language. Incidentally, her response language seems quite unpredictable on the basis of the language in which she is addressed. It is highly probable, however, that if she is asked in French, for example, about what happened at school during the day, her reply will be in English. This would seem to suggest a reluctance to use one language in discussing what transpired in a situation associated with exclusive use of the other. Weinreich touches upon this in his discussion of departure from specialized uses of a language as a stimulus in interference (1953, 81).

The arrangement of this study evolves from analysis of the data, which suggested a binary scheme of classification and presentation.

Chapter 1. will contain examples of lexical interference. Such interference can occur in two forms: 1) outright transfer of a lexical morpheme from one language to another, for example, *The bun was* $_F$*infâme* 'The bun tasted awful'; and 2) extension of meaning of a lexical morpheme owing to identification with a morpheme in another language, for example, *Boy! Does that smell hard*, where *hard* is used to mean 'strong' under the influence of French *fort* which can mean both.

Chapter 2. will contain examples of grammatical interference. Theoretically, this can occur as follows: 1) parallel to the transfer of a lexical morpheme would be the transfer of a grammatical morpheme, for which, in this study, we have no example;[7] 2) parallel to the extension of meaning of a lexical morpheme would be the extension of the grammatical function of a morpheme, for example, *Quand je l'ai premier vue* 'When I first saw her', where the function of the French adjective *premier* is extended to include that of adverb on the model of English *first* which functions as both; and, in addition, 3) transfer of a grammatical relationship from one language to another, for example, *Tu vraiment aimes la bière*? 'You really like beer?', where a syntactical rule governing placement of adverbs in English, applied to French, causes interference.

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[7] Weinreich (1953), 30 offers the example from American Yiddish /nit er bʌt ix/ 'not he but I'.

Sometimes it is not clear whether a given example of interference is entirely lexical or entirely grammatical. For example, in *Il regarde comme son père* it is difficult to decide whether the meaning of French *regarde* was extended on the model of English *looks*, i.e., lexical interference, or whether the English phrase *looks like* has given rise to a 'syntactical anglicism,'[8] *regarde comme*, therefore reflecting grammatical interference.

Although either analysis might be possible, it is felt that the latter is preferable in view of repeated combining of *regarde* with *comme*, as well as *à* and *pour*, on the models of the English phrases *look like*, *look at* and *look for*.

Thus, on the basis of the type of interference, two major categories have been established: *Lexical interference* (1.) and *Grammatical interference* (2.).

The category *Lexical interference* (1.) has been divided into *Loanwords* (1.1) and *Loanshifts* (1.2).

The category *Grammatical interference* (2.) has been divided into *Grammatical relations* (2.1) and *Extension of Grammatical morphemes* (2.2).

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[8] The term is adapted from Pap (1949), 171, note 5.

In an attempt to aid the reader in understanding various general factors which are reflected in the data, sections headed Notes are included following certain sets of examples. For example, in section 1.13. (ii) form classes into which the child's loanwords fall are discussed. In these sections the notation (1.11;22), for example, refers the reader to the twenty-second utterance listed in preceding section 1.11.

The two main divisions are followed by a discussion of Conclusions and suggestions for future research (3.).

Finally, in an Appendix are listed English and French words for which loanwords have been substituted and English and French words which have been ignored in favor of loanshifts. An asterisk preceding a word means that it can be assumed that the child does not know the word.

0.4. Presentation of examples. The examples in each section are presented chronologically. In all examples except those in Syntactic substitutions (2.11) and Word order (2.12) the specific morphemes which bear evidence of interlingual identification or illustrate outright transfer are underlined. Unless otherwise indicated, underlining of morphemes within utterances also means that the phonemic shape of the morpheme is that of the language to which it normally belongs.[9] For example, in the utterance

Is Churchill *mort*? (6;11) 'Is Churchill dead?'

there is a switch of phonemic codes between the morphemes *Churchill* and *mort*, i.e., the /r/ in *Churchill* is retroflex; that of *mort* is uvular.

As in the above example, each utterance is followed by an indication of the child's age at the time the interference was noted in her speech.

Indication of age is followed by a gloss of the utterance, given in single quotes.

For the child's French utterances, a Standard French (SF) version, underlined, is given when it is considered helpful to the reader in understanding the interference. For example, in the utterance

> Je crois que les *Canadian French* appellent des paquets des /pike/. (6;10) 'I think French Canadians call packages /pike/.' SF *Je crois que les Canadiens Français appellent des paquets des* /pike/.

it should be noted that the English morphemes inserted in this

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[9] In addition, for reasons of clarity, there is occasional use of subscript *E* or *F* to indicate English or French phonemic code respectively.

French utterance conform, nevertheless, to syntactic rules of Standard French.

As in the above example, phonemic transcriptions are placed within slant lines /.../. Phonetic transcriptions are placed within brackets [...].

Both English and French utterances are presented in conventional orthography. This does not indicate that the child knows rules of spelling agreement as shown in the loanword embedded in the utterance

I think the streets are *sales* [sal] here. (7;2) 'I think the streets are dirty here.'

In the examples in the section on *Stress* (2.14), the data are presented as in the following example:

Va mettre 'ton ${}_F$kilt. (7;1) 'Go put on *your* kilt.' SF *Va* *mettre* *ton* *kilt* *à* *toi*. The French morpheme which receives the primary stress transferred from English is marked by a preceding single quote. In the gloss, the English morpheme which would receive primary stress in the model utterance is underlined.

No attempt is made to indicate intonation. With the exception of the examples in 2.14, where transfer of English stress introduces a concomitant English intonational pattern, all examples may be considered as having native intonation.

CHAPTER 1.

LEXICAL INTERFERENCE

1.0. Introduction. This chapter includes examples of lexical interference in the child's speech.

Lexical interference in the speech of a bilingual results from his knowledge of two vocabularies. Weinreich (1953, 47) has stated that "given two languages, A and B, morphemes may be transferred from A into B, or B morphemes may be used in new designative functions on the model of A-morphemes with whose content they are identified." Observation of this child's speech has yielded examples of both types of lexical interference described by Weinreich. Outright transfer can be seen in the utterance

Mon lit est messy. (6;11) 'My bed is messy.'

Identification of content can be seen in the utterance

Isn't that water fresh? (6;8) 'Isn't that water cold?'

where the English fresh under the influence of French fraîche has been extended beyond its usually accepted designative function.

According to Weinreich (1953, 31), the outright transfer of morphemes from one language into speech in another may be viewed as a "means of correcting the inadequacies of a lexicon." This statement seems reasonable in a general formulation of principles but needs some refinement if it is to be applied to the two-way lexical transfer in the speech of this particular bilingual child. When she transfers an English morpheme into her French speech, the purpose may very well be to correct an inadequacy in her French lexicon as, for example, in the utterance

Elle dort soundly. (6;7) 'She is sleeping soundly.'

where it is certain that she does not know the SF expression à poings fermés or profondément, or, as in the utterance

On met du catsup. (6;7) 'You put on some catsup.'

to refer to something which does not exist in general French culture.

However, the transferring of items from the child's French lexicon into her English utterances is, in general, not done with the express purpose of correcting inadequacies in her English lexicon. Thus,

I am getting très faim. (6;9) 'I am getting very hungry.'

occurs in spite of the fact that the child can be assumed to know the English words very hungry. An exception may be the transfer found in the utterance

I don't like chemises de nuit + /z/. (6;6) 'I don't like nightgowns.'

It is entirely possible that nightgown is not in the child's active English vocabulary since this particular item is referred to in French in the home, and presumably not referred to outside the home. (On the other hand, pyjamas is in her English lexicon.)

Outright transfer of morphemes occurs, then, in both the child's English and French speech. It is felt, however, that owing to the imbalance of her linguistic experience, transfer of English morphemes into her French utterances may be explained, in large measure, by Weinreich's statement concerning lexical inadequacies mentioned above, but that such an explanation fails to account for the transfer of French morphemes into English utterances, since, living as she does in a predominantly English-speaking culture, her English lexicon is generally adequate to communicate her field of experience.

It can be seen that in outright transfer, the child may or may not know the equivalent morpheme in the recipient language. The loan may temporarily displace a known form or it may fill a lexical void. On the other hand, when a morpheme is given new designative functions, it stems from knowledge of an influencing form.

The effects of lexical interference in the child's speech depend upon whether her interlocutors are monolingual or bilingual. In the outright transfer of morphemes, the borrowed term will be clearly understood by bilinguals, but not understood or even misunderstood by monolinguals. When, owing to the influence of the other language, the child broadens the semantic field of a particular morpheme in an utterance composed of morphemes of the same language, the resulting interference is more complex and is distributed along a comprehension scale for monolinguals ranging from understanding through analogy to complete misunderstanding. The majority of instances of interference in this category would not greatly hamper communication, even with monolingual speakers. For example, in the utterance

J'ai envie de prendre une sieste. (6;5) 'I want to take a rest.'

prendre une sieste, instead of SF faire une sieste, would be easily understood because of such analogous expressions as prendre des vacances 'to take a vacation', prendre des précautions, 'to take precautions', etc. On the other hand, an utterance such as

Ô, maintenant! (6;4) 'Oh, now!'

to indicate disgust is meaningless to monolingual French speakers, and the utterance

Marie-Noël a caché un chèque sans argent. (7;1) 'Marie-Noël cashed a check without any money (in the bank).'

would be totally misunderstood by a monolingual French speaker who would assume the child meant to say 'hid a check'.

The causes and effects, then, of lexical interference in the child's speech will best be pursued in a psycholinguistic investigation of bilingualism which is outside the realm of this study. It is hoped, however, that the data here presented, in combination with that of similar studies, would contribute to such a project.

For the purpose of this study, lexical interference will be characterized as the occurrence of deviations from generally accepted adult-monolingual sign-content norms of either of the languages in contact. An ordered presentation of these deviations in the child's speech has been facilitated by the adoption, in general, of terminology and criteria for the classification of loans as set forth by Haugen (1950).

Thus, on the basis of the extent of morphemic substitution involved in the actualization of lexical interference, the deviations may be subdivided into two main categories: Loanwords (1.1), i.e., the outright transfer, without morphemic alteration, of a sign from one language to the other, for example,

We're drôles, aren't we? (6;8) 'We're funny, aren't we?'

and Loanshifts (1.2), i.e., no transfer of a morpheme from the language in contact is involved, but, due to bilingual influence, a more or less subtle extension of the meaning of a sign occurs, for example, in the utterance

I need more water for my $_E$experience. (6;10) where experience widens its semantic field under the influence of expérience 'experiment'.

Further clarity in describing lexical interference has been sought by adopting Weinreich's (1953, 31) terminology for designating the respective roles of the languages in contact in an interference situation. Thus, in the case of Loanwords, where there is morphemic substitution, i.e., an observable transfer of morphemes, the lending language will be termed the source language; the borrowing language, the recipient. In the case of Loanshifts, where there is no morphemic substitution, the lending language will be termed the model language; the borrowing language, the replica.

1.1. Loanwords. When two languages are employed by the same speaker we may expect to find morphemes transferred with or without phonemic substitution and with or without change in content from one language to the other. According to Haugen (1953, 388), "it is not necessary nor even usual to take over a word with all its sounds, forms, and meanings intact." Haugen's statement is undoubtedly true for the majority of the bilingual speakers whose interference problems constitute the corpus upon which his study is based and is applicable, in general, to the speech of the child in this study. Observation of her speech shows that in transferring morphemes from one language to the other she avoids the alteration of meaning.

As for the phonemic shape of the loanwords, beyond conscious attempts to imitate her mother's pronunciation, the child's English phonology shows no trace of French influence, even when an English morpheme is embedded in a French sentence. Similarly, French segmental phonemes are correctly realized.

The data show that overt morphological adaptation occurs in the importing of French loanwords into English utterances. For example, the addition of the suffix -ing to a French loanword occurs with relative frequency, as, for example, in the utterance

The cat is miaule + ing. (6;9) 'The cat is meowing.'

This phenomenon does not often occur in the importation of English loanwords into French utterances. Here, the only comparable attempt at morphological adaptation of a loanword is covert in nature, as for example, in the utterance

> Mardi, il y a des _hamburger_. (6;7) 'Tuesday we have hamburgers.'

where the reduced form _hamburger_ rather than _hamburgers_ occurs.

In general, examples of lexical interference grouped together under the heading _Loanword_ will have as criteria: 1) complete morphemic importation from the _source_ language, 2) no change of meaning, and 3) phonology of the _source_ language.

1.11. _Loanwords_: _Examples_ _in_ _French_ _Utterances_.

(French = recipient language; English = source language.)

1. Un de tes _blooms_ sont _dead_. (6;4) 'One of your flowers is dead.'
2. J'ai fait un _mistake_. (6;5) 'I made a mistake.'
3. Est-ce que je peux avoir du _jam_? (6;5) 'May I have some jam?'

4. Dis *about* l'histoire. (6;6) 'Tell about what happened.'
5. Ça me *distract* d'aller chez $_E$Mrs. Morrison. (6;6) 'It is fun for me to go to Mrs. Morrison's.'
6. Elle dort *soundly*. (6;7) 'She is sleeping soundly.'
7. J'aime pas le *peanut* *butter*.[1] (6;7) 'I don't like peanut butter.'
8. Mardi, il y a des *hamburger*. (6;7) 'Tuesday we have hamburgers.'
9. On met du *catsup*. (6;7) 'You put on some catsup.'
10. Le $_E$*score*, c'était un à *twenty*-*seven*. (6;7) 'The score was one to twenty-seven.'
11. Tu es toujours dans le même $_E$*office*? (6;7) 'Are you still in the same office?'
12. Ça c'est *toward* ... un petit peu près de Pierette.[2] (6;8) 'That (place you mentioned) is over toward Pierette's house.'

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[1] The absence of SF *ne* in the child's negative utterances is thought not to be attributable to English influence, but to be explained by referring to Grégoire (1947), 166: "Par respect de la tradition, le français conserve la négation d'ordre composite 'ne pas', mais les enfants ont le sentiment que le mot 'pas' suffirait à lui seul."

[2] This represents circumlocution which happens to be incorrect.

13. C'est très *fa* ... loin? (6;9) 'Is it very far?'
14. Je connais quelqu'un qui fait *grow* le muguet. (6;9) 'I know someone who grows lily-of-the-valley.'
15. J'ai pas peur des chiens, *except* les gros chiens. (6;9) 'I'm not afraid of dogs, except big dogs.'
16. Ça me gratte et je le *scratch*. (6;10) 'It itches and I scratch it.'
17. Je crois que les *Canadian French* appellent des paquets des /pike/. (6;10) 'I think French Canadians call packages /pike/.' SF *Je crois que les Canadiens Français appellent des paquets des* /pike/.
18. C'est vingt minutes *before* dix heures *o'clock*? (6;11) 'Is it twenty minutes before ten?' SF *Il est dix heures moins vingt*?
19. Je crois pas que ce mélange va aller très bien *together*. (6;11) 'I don't think that mixture is going to go very well together.'
20. Rien de *special*. (6;11) 'Nothing special.'
21. Mon lit est *messy*. (6;11) 'My bed is messy.'
22. Marie-Noël *smoke* des *Winston*. (7;0) 'Marie-Noël smokes Winstons.'
23. Papa va *listen*. (7;0) 'Papa is going to listen.'
24. Il faut que tu *sign*. (7;0) 'You have to sign.'

1.12. Loanwords: Examples in English Utterances.

(English = recipient language; French = source language.)

1.12.(i) Examples of outright transfer of free forms from the source language which show no overt morphological adaptation to the recipient language.

1. The Pontiac $_{F}$pousse + ing the $_{F}$Renault. (6;4) 'The Pontiac pushing the Renault.'
2. I want to $_{F}$amuse. (6;6) 'I want to have a good time.'
3. We're drôles, aren't we? (6;8) 'We're funny, aren't we?'
4. The bun was infâme. (6;8) 'The bun tasted awful.'
5. It's made of $_{F}$aluminium. (6;9) 'It's made of aluminum.'
6. I am getting très faim.[3] (6;9) 'I am getting very hungry.'
7. Daddy's going to start to râler. (6;9) Daddy's going to start to complain.'
8. I like to have mon manteau shut. (6;10) 'I like to have my coat buttoned.'
9. I know I chante faux. (6;10) 'I know I sing off-key.'

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[3] For a parallel example in French, cf. (1.21.(i);8).

10. That *gant éponge* $_F$gratte + /s/. (6;10) 'That wash cloth scratches.'

11. I promised to get up without *rouspéter*. (6;11) 'I promised to get up without complaining.'

12. Is Churchill *mort*? (6;11) 'Is Churchill dead?'

13. How would she like to get *critiquée*? (6;11) 'How would she like to get criticized?'

14. You know, the Hadaways are *guéris*. (6;11) 'You know, the Hadaways are well again.'

15. One more and we are going to be *ex aequo*. (6;11) 'One more (point) and we are going to be even.'

16. There was some $_F$*sauce* and I couldn't eat it. (6;11) 'There was some gravy and I couldn't eat it.'

17. After a long *chaine* of mountains? (6;11) 'After a long mountain range?'

18. I'm watering those *fines herbes*. (7;0) 'I'm watering those chives.'

19. *Dis* me how Andy says tomato. (7;1) 'Tell me how Andy says tomato.'

20. For the *carriole*, we have a kind of *chiffon* to dust it. (7;2) 'For the cart, we have a kind of rag to dust it.

21. I think the streets are *sales* here. (7;2) 'I think the streets are dirty here.'

1.12.(ii) Examples of outright transfer which have been overtly adapted morphologically by the addition of a suffix from the recipient language.

1. The Pontiac pousse + ing the $_F$Renault. (6;4) 'The Pontiac pushing the Renault.'
2. I don't like chemises de nuit + /z/. (6;6) 'I don't like nightgowns.'
3. Are you going to have the sleeves longue + /nd/? (6;8) 'Are you going to have the sleeves lenghtened?'
4. I don't like banane + / z/. (6;9) 'I don't like bananas.'
5. I am not rouspète + ing. (6;9) 'I am not complaining.'
6. She is lèche + ing her babine + /z/. (6;9) 'She (cat) is licking her chops.'
7. The cat is miaule + ing. (6;9) 'The cat is meowing.'
8. That $_F$gant éponge gratte + /s/. (6;10) 'That wash cloth scratches.'
9. Are you soigne + ing the cats? (6;11) 'Are you taking care of the cats?'
10. I am not fais /fe/ + ing that! (7;0) 'I am not doing that!'

1.13. Notes. In this section will be found brief discussions of questions related to the loanwords presented in 1.11 and 1.12. The topics are (i) Code, (ii) Form classes, and (iii) Cognates.

(i) Code. In order to examine loans occurring in the flowing speech of a bilingual, especially one who switches rapidly from one language to the other, it is necessary to identify the language or code to which the utterance containing the borrowing belongs. Utterances in 1.11 are considered French and those in 1.12 English because of certain grammatical considerations. Consequently, foreign elements found therein are deviations of a lexical nature, i.e., Loanwords, which the child has fitted into a French or English grammatical scheme either consciously or unconsciously. In most utterances which contain only a single loanword the grammatical code is usually clearly established by the remaining morphemes. In others, a more detailed examination of the actual loanwords is required before the particular code being employed is revealed. This can be illustrated in the example Marie-Noël smoke des Winston (1.11;22). Here, other than the proper name, Marie-Noël, only one French morpheme, des, is used. Nevertheless, the utterance is considered French because, while lexical interference is evident, the loanwords are grammatically integrated: smoke conforms to the French pattern for verbs in the present tense where, contrary to English, there is no marker for third person; *Winston*, conforming to the pattern for French nouns, lacks the /z/ which it would normally have in English. A parallel example can be found in *That gant éponge gratte* + /s/(1.12(ii);8). The lexical morphemes of this utterance are French but the grammatical signals, the determiner *that* and the third-person, present tense marker /s/, indicate that the grammatical code being used is English.

In the example *Rien de* $_E$*special* (1.11;20), the grammatical morpheme *de* suggests that the interference is lexical in nature and occurs in an utterance whose grammatical code is French. Had the child said *Rien* $_E$*special*, the grammatical structure might well have been analyzed as English and *rien* would have been termed the loanword in the utterance.

Difficulty in always maintaining rigid adherence to criteria which have been established for purposes of classification can be illustrated by the example *Dis about l'histoire* (1.11;4). The source of this interference may very well be that the verb *tell* is transitive or intransitive whereas *dire* is only transitive. The transfer of the preposition *about*, in effect, makes *dire* intransitive in the child's construction. Nevertheless, the dominant code in the utterance is thought to be French and the child's knowledge of English structure is seen secondarily, rather than primarily, as the source of the interference, so that the example is analyzed as illustrating outright transfer of the morpheme about.

In addition to isolated loanwords, there are instances in the child's speech of the phenomenon of code-switching, i.e., where she begins an utterance in one code and completes it in the other, usually with no perceptible pause. Apparently, the codes are not confused; rather, they are mutually exclusive in that portion of the utterance where each is used. Haugen (1953, 65) explains the difference between switching and borrowing by stating that, in switching, "the two languages are not superimposed, but follow one another."

The following examples illustrate a complete switch of codes in the midst of an utterance:

1) On va use these cups? (6;4) 'Are we going to use these cups?'

Here, it is probable that the child does not know the SF se servir de 'to use'.

2) She does critiquer cette pauvre femme. (6;11) 'She does criticize that poor woman.'

Here, it may be noted that the child's knowledge of English stress interferes with her French (see 2.4). In this particular utterance, she wanted to express emphasis, hence does with primary stress. When this was accomplished, she switched to French.

3) C'est Antoine qui has the ski boots. (7:0) 'It is Antoine who has the ski boots.'

In this utterance the switch occurs within a breath group, i.e., not at the major boundary between the two clauses, but after the relative pronoun which introduces the dependent clause.

These examples illustrate a phenomenon in the child's speech which occurs with bilingual speakers. With monolingual English speakers, she is able to control switching. Proneness to code-switching then, with this particular bilingual child, is closely related to the bilinguality or monolinguality of her interlocutors and to the language community in which she finds herself.

(ii) Form classes. The French utterances in 1.11 show that the child has introduced English loanwords which may be divided into five form classes: noun, verb, adjective, adverb, and preposition. The English utterances in 1.12 contain examples of French loanwords which fall into four form classes: noun, verb, adjective, and adverb.[4]

The transfers in the noun class bear evidence of interference in the treatment of number and gender. Noun phrases in both English and French are subject to the expression of the category of number, but in different ways. In French, number is usually expressed by a determiner which accompanies the noun; in English, by a suffix. *Blooms* (1.11;1) retains the /z/, thus agreeing with the French plural determiner *tes*. On the other hand, there is no evidence of a plural marker in the loanword *Winston* (1.11;22) nor in the loanword *hamburger* (1.11;8). Instead, in accordance with the French pattern, plurality is conveyed solely by the determiner *des* in both instances. The compound loanword *chemises de nuit* (1.12(ii):2) is not analyzed and the /z/, in accordance with the English pattern, is added as a suffix to the whole phrase. In contrast to the treatment of *chemises de nuit*, the compound loanword *fines* /z/ *herbes* (1.12(i);18) does not have the /z/ suffix. The compound loanword *Canadian French* (1.11;17) gives evidence of the French model, *Canadiens Français*. Plurality is conveyed by the determiner *les* whereas the English 'French Canadians' has the usual /z/.

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[4] The French interjection Hein /ẽ/ is heard frequently in the child's English speech.

English loanwords which are nouns clearly have to be assigned to either masculine or feminine gender. Seven such nouns, where gender can be identified, are given masculine gender: *un bloom* (1.11;1), *du jam* (1.11;3), *un mistake* (1.11;2), *le peanut butter* (1.11;7), *du catsup* (1.11;9), *le* ${}_E$*score* (1.11;10), and *le* ${}_E$*office* (1.11;11). The French equivalents of *bloom*, *mistake*, and *jam* (*fleur*, *faute*, and *confiture*), which the child presumably knows, are all feminine in gender. Although the child occasionally hears the translation of peanut butter (beurre de cacahuète), she consistently uses the loanword which is given masculine gender. Catsup has no French equivalent which might possibly influence choice of gender. The child probably does not know the French word score 'score' and uses instead the loanword which she integrates grammatically by giving it masculine gender but makes no attempt at phonetic integration. The child knows the French words office (f.) 'pantry' and bureau (m.) 'office' or 'desk'. Presumably the gender of bureau has influenced the assigning of English office to the masculine category. A much larger sample would be necessary before it would be possible to state definitely that the child automatically assigns masculine gender to all English loanwords. Nevertheless, the evidence found here seems to indicate a trend in this direction.

The verbal forms which have been subjected to outright transfer may be divided into the infinitive and finite forms. Syntactically, both forms are correctly integrated but are accompanied, nevertheless, by evidence of interlingual identification. For example, in Papa va listen (1.11;23), the infinitive embedded in the utterance lacks the preposition to which usually precedes the infinitive in English. In other words, the loanword is correctly integrated into the

French utterance, for the verb *va* 'goes' is followed directly by a dependent infinitive with no intervening preposition. In a related example occurring in *Daddy's going to start to râler* (1.12(i);7), the French infinitive is, in accordance with English structure, preceded by *to*. It is probable that the SF *Papa va commencer à râler*, which does include the equivalent preposition *à*, is known by the child but it is doubtful that this factor is operating here. In the example *I promised to get up without rouspéter* (1.12(i);11), it can be seen that the loanword has not been adapted formally to the grammar of the English utterance but has been transferred in the form it would have following the preposition *sans* 'without' in French. The loanword infinitive in *I want to* $_F$*amuse* (1.12(i);2), shows, on the contrary, an attempt at formal adaptation to English grammar. The spoken French infinitive marker /e/ has been dropped, causing, in effect, the infinitive to resemble the finite form as it does in English. The loanword infinitive occurring in *Je connais quelqu'un qui fait* $_E$*grow le muguet* (1.11;14) has been correctly integrated syntactically into the French construction *faire* + infinitive 'to cause something to be done'. It is probable that the child does not know *cultiver* 'to grow' which would occur in the SF expression.

Two finite loanword verbal forms bear evidence of formal adaptation to the grammatical code of the utterance in which they are embedded: smoke (1.11;22), occurring in a French utterance, lacks the /s/ it would normally have as a third-person present tense verb in English; gratte + /s/ 'scratches' (1.12(ii);8), occurring in an English utterance, has the /s/ in accordance with the English pattern.

Most of the French adjectives which have been transferred do not mark the masculine/feminine contrast. In only one example, Is Churchill mort? (1.12(i);12), is there any evidence which can be adduced as agreement. Here, the masculine form, agreeing with Churchill, is transferred. The English equivalent dead has been transferred into a French utterance (1.11;1). The fact that the child knows both forms does not seem to prevent transfer.

The transfer of twenty-seven (1.11;10) points up the fact that the child prefers to express numerical relationships in English; she automatically asks that numbers be translated. If challenged, however, she will supply the correct translation.

The origin of the Latin adjective phrase ex aequo (1.12(i);15) is unknown to the child. She treats it exactly as any other French adjective in transferring it into an English utterance.

The loanwords which represent the form class adverb are indicative of different phases of interference. *Soundly* (1.11;6) is transferred because the child does not know the SF expressions *profondément* or *à poings fermés* or simply did not feel that the more common adverb *bien* 'well' was appropriate. *Together* (1.11;19) and the adverbial phrase *o'clock* (1.11;18) seem to have been transferred in order to reinforce the meaning of the utterances. The loanword *far* (1.11;13) represents an instance of self-perceived interference, for the child did not complete the loanword, saying only /fa/. After an almost imperceptible pause, she supplied the French equivalent *loin*. The over-all effect phonetically was [fa:lwẽ]. The French adverbs *très* (1.12(i);6) and *faux* (1.12(i);9) form close-knit units with their accompanying loanwords. While *très* may have occurred with other French loanwords, it is unlikely that it would be borrowed by itself to modify English adjectives.

At the present stage of the child's linguistic development, English is the language in which she shows the greater facility. This may be the reason that no French loanwords are represented in the form class preposition. No evidence is available that structural relationships signalled by French prepositions have influenced English constructions. In Section 2.11, on the contrary, examples of the influence of

English structural relationships on French are given. This influence has at times resulted in English prepositions being translated into French and inserted in otherwise correct French utterances.

(iii) *Cognates*. The data presented in this section reveal several examples of loanwords which are cognates. When both terms are known to the child, transfer is most probably due to similarities in sound as well as meaning, and the loanword merely displaces momentarily the recipient language form. In the child's usage, in other words, the loanword is treated as a synonym. An exception seems to be the transfer of the loanword $_{E}$*office* (1.11;11), where the known cognate $_{F}$*office* (f.) has the meaning 'pantry'.

When only one term of the cognate pair is known to the child, similarities in sound and meaning as transfer stimuli are not operative and the borrowing may be seen as an effort to fill a lexical void in the recipient language. In the transfer of *drôles* (1.12(i);3), it may be pointed out that, whereas the use of this word by a monolingual French six-year-old would not be unusual, the use of the cognate *droll* by an English monolingual of the same age might be comparatively rare. The relationship between $_{F}$*chiffon* 'rag' (1.12(i);20) and $_{E}$*chiffon* is completely unknown to the child and it is almost certain that she would not be able to analyze their cognate value.

The transfer of the loanword cognates, even when both terms are known, seems to be similar to that of non-cognates.

Listed below are the loanwords whose cognate is known in the recipient language:

1)	*English* (source)	*French* (recipient)
	office (1.11;11)	*office* 'pantry'
	Canadian French (1.11;17)	*Canadiens Français*
	special (1.11;20)	*spécial*
	sign (1.11;24)	*signes*
2)	*French* (source)	*English* (recipient)
	Renault (1.12(i);1)	Renault
	aluminium (1.12(i);5)	aluminum
	critiquée (1.12(i);13)	criticized

Listed below are those loanwords whose cognate in the recipient language is thought to be unknown to the child:

1)	*English* (source)	*French* (recipient)
	score (1.11;10)	*score*[5]

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[5] The child would probably assume that *score* 'score' is not French but a "family anglicism". For example, she knows that 'mess' (m.) is a frequently used family anglicism which contrasts with *messe* (f.) 'mass'.

except (1.11;15)	*excepté*

2)

French (source)	*English* (recipient)
drôles (1.12(i);3)	droll
chiffon (1.12(i);20)	chiffon

1.2. *Loanshifts*. A type of interference different from that exemplified by the *Loanword* becomes evident in the child's speech when she extends the designative function of a morpheme beyond its normal, i.e., accepted adult-monolingual semantic area. Whereas the loanword represents a kind of interference whose occurrence is forthright and easily observed, this second type is more subtle, requiring, in general, the positing of some intervening mental process which is not directly observable. Haugen (1953, 459) calls this type of interference "a more insidious transfer of patterns" than that represented by loanwords and adopts the term *Loanshift* "because the loan appears only as a shift of context on the part of a native word" (1953, 391). He states the principle of loanshift extension as: "Whenever language A is subjected to influence from language B, some of this influence will appear in the form of new contexts for those native words which remind speakers of foreign words" (1953, 400).

The examples of loanshift extension in the child's French and English speech indicate that the point of contact, or, to use Haugen's term, the reminder, may be either semantic or phonetic in nature. It should be noted, however, that almost without exception, phonetic identification is accompanied by semantic identification.

The purely semantic aspect of this phase of lexical interference is illustrated, for example, in the utterance

Tu as tes *lumières*? (6;8) 'Do you have your lights on?'

where *lumières* 'lights' is extended to mean 'headlights of an automobile', normally rendered by SF *phares*.

A phonetic-semantic aspect is a point of contact resulting in the loanshift in the utterance

Quel *nombre*? (6;8) 'Which number?' SF *numéro*.

There is phonetic similarity between French *nombre* and English *number* which in conjunction with semantic identification, enhances the possibility of confusing the designative functions of the two morphemes.

An example of interference where phonetic identification is primary is found in the utterance

Marie-Noël a *caché* /kaše/ un chèque sans argent. (7;1) 'Marie-Noël cashed a check without any money (in the bank).'

It would be possible to analyze this instance of interference on two planes. First, it may be called an extension of meaning of the morpheme *caché* 'hidden' to mean 'cashed'. This would seem to conform to the analysis given to an example from the speech of Portuguese-Americans reported by Pap (1949, 91) who noted that these bilingual speakers extended the meaning of *bordar* 'to embroider' to mean 'to board'. Haugen (1953, 366) concurs with Pap's analysis when he uses this example to show how loans may influence native words by appearing as borrowings that are "homonymous with native words of totally different meanings." Secondly, it would be possible to analyze /kaše/ from the above utterance as a *loanword* which is completely integrated, phonetically as well as grammatically. Arguing against this latter analysis is the rarity of occurrence of phonetically integrated loanwords in the child's speech; arguing against the former analysis is the fact that the child knows and uses *caché* 'hidden' very often in her French speech and would conceivably try to avoid such a "leap" in meaning, as Weinreich (1953, 49) terms this type of interference involving homophony. It might be significant to note, however, that this particular utterance was observed in a fast-moving conversation in French involving four adults. The child obviously wanted to participate actively and her enthusiasm may have led her to ignore this leap in meaning.

In addition to the roles of semantic and phonetic stimuli in the process of loanshift extension, analysis of certain examples reveals a grammatical aspect which may contribute, if only secondarily, to this type of lexical interference. For example, in the utterance

Itch my back. (6;6) 'Scratch my back.'

a grammatical conflict may be seen as contributing to the extension of the meaning of *itch*. It would be possible, of course, to regard this instance of interference as being exclusively semantic in nature, i.e., it may be suggested that *itch* has undergone an extension of meaning due to the interference of *gratter* which means both 'to itch' and 'to scratch'. While this analysis would be essentially correct, it does not reveal as complete a description of the interference as does the focusing of attention simultaneously on the grammatical differences between the child's two languages at this particular point of contact. There is undoubtedly semantic identification involved in this loanshift, but the grammatical distinction between transitive and intransitive also may be seen as contributing to the process of transfer. Whereas *gratter* may occur transitively in the frame *Gratte-*

moi le dos 'Scratch my back' and intransitively in the frame Ça gratte 'That itches', itch does not usually occur transitively.

These observations expose the difficulty of always making a clear distinction between lexical and grammatical interference and also brings up the question of the necessity of doing so. Weinreich (1953, 47) defends his separation of lexical and grammatical interference (in what Haugen (1954, 385) describes as "a barbed footnote") stating: "The separation of the grammatical and lexical aspects of interference presupposes, of course, that many morphemes do have a designative function distinct from their purely grammatical function. The author regrets that to those formalistically inclined readers who cannot conceive of linguistic meaning other than distribution and of linguistic semantics beyond context analysis, the material in this chapter on lexical interference will appear either repetitious or linguistically irrelevant."

The position taken in this study is that certain instances of this type of lexical interference, i.e., loanshift extension, may have had a higher probability of occurrence because of a concomitant grammatical conflict between the two languages. Therefore, in the _Notes_ (1.23) following the examples of loanshifts, attention will be called to those particular examples where it is felt that grammatical aspects may have contributed to the process of loanshift extension.

The data show that loanshift extensions occur most often as single, free morphemes. They may occur also, however, as part of a compound, as, for example, in

> Doris can eat the _rest_-overs. (7;0) 'Doris can eat the left-overs.' SF _les_ _restes_ 'left-overs',

or as a complete utterance,

> Tu sais quelque chose? (7;0) 'You know something?'

which may be interjected rhetorically in English discourse.[6]

Examples included in the category _Loanshift_ will have as criteria: 1) complete morphemic substitution, i.e., the morpheme affected belongs to the lexicon of the _replica_ language and there is no overt morphemic importation from the _model_ language, 2) extension of meaning attributable to bilingual influence, and 3) phonology of the _replica_ language.

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[6] The English expressions 'You know something?' or 'You know what?' are frequently interjected in a like manner into French discourse.

1.21. *Loanshifts*. *Examples in French Utterances*.

(English = model language; French = replica language.)

1.21.(i) *Examples of loanshifts where the nature of the point of contact is semantic*.

1. Tu vas te *pousser* une barbe? (6;4) 'Are you going to grow a beard?' SF *Tu vas te laisser pousser la barbe*?
2. Ô, *maintenant*![7] (6;4) 'Oh, now!' SF *Ô, vraiment*!
3. J'ai envie de *prendre* une sieste. (6;5) 'I want to take a rest.' SF *J'ai envie de faire une sieste*.
4. Sophie *connaît* où il y a de l'eau. (6;5) 'Sophie knows where there is some water.' SF *Sophie sait où il y a de l'eau*.
5. Ça *prend* de la $_{F}$/praktis/ pour chanter comme ça. (6;6) 'It takes practice to sing like that.' SF *Il faut travailler pour chanter comme ça*.
6. *L'heure* est trois heures moins dix. (6;6) 'It (the time) is ten minutes to three.' SF *Il est trois heures moins dix*. *heure* 'hour', 'time'.

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[7] The child wished to express disgust.

7. *Poisson!*[8] (6;7) 'Fish!' SF *Tirez une carte*.

8. Je *deviens* faim. (6;7) 'I'm getting hungry.' SF *Je commence à avoir faim*. *devenir* 'to become'.

9. *Devant*? (6;7) 'Before (lunch)?' SF *devant* 'before (in space)', *avant* 'before (in time)'.

10. J'ai envie que tu *pousses* une moustache. (6;7) 'I want you to grow a moustache.' SF *J'ai envie que tu te laisses pousser la moustache*.

11. Le plus *grand*. (6;7) 'The highest (the most advanced group in the class).' SF *Le plus avancé*.

12. Tu *deviens* mal au coeur? (6;7) 'Are you getting sick?' SF *Tu commences à avoir mal au coeur*?

13. Ils *regardent* mieux en jaune et blanc. (6;7) 'They look better in yellow and white.' SF *Ils sont mieux en jaune et blanc*.

14. Elle *regarde* mieux maintenant. (6;8) 'She looks better now.' SF *Elle est mieux maintenant*.

15. Il *regarde* très américain. (6;8) 'He looks very American.' SF *Il a l'air très américain*.

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[8] Used as the imperative form of a verb while playing an American card game with a monolingual French speaker.

16. Ils vont *partir de* leur maman et de leur papa. (6;8) 'They are going to run away from their mother and father.' SF *Ils vont quitter leur maman et leur papa*. *partir de* 'to leave from'.

17. Il a *pris* Mademoiselle Boudet. (6;8) 'He took Miss Boudet (with him).' SF *Il a emmené Mademoiselle Boudet*.

18. Tu as tes *lumières*? (6;8) 'Do you have your lights on?' SF *Tu as mis tes phares*?

19. Je *sais* le Président d'Italie. (6;9) 'I know the President of Italy. SF *Je connais le Président d'Italie*.

20. Elle a des *cheveux* noirs. (6;9) 'It (hand) has black hairs (on it).' SF *cheveux* 'hair on the head'; *poils* 'body hair'.

21. Ça me *fait* plus faim. (6;9) 'That makes me hungrier.' SF *Ça me donne plus faim*.

22. Il a resté ici *tout le matin*. (6;9) 'He stayed here all morning.' SF *Il est resté ici toute la matinée*.

23. Moi, je *sais* pas son tiroir. (6;10) 'I don't know which drawer is his.' SF *Moi, je ne connais pas son tiroir*.

24. Vous avez fait de la monnaie? (6;10) 'Did you (p.) make any money?' SF Vous avez gagné de l'argent?

25. J'irai pas "do-do"! (6;10) 'I won't go to sleep!' SF Je ne ferai pas "do-do".

26. Quand tu l'as trouvé? (6;11) 'When did you find out (that you really like beer)?' SF Quand t'en es-tu aperçu?

27. Maman, dis-moi de ces gens. (6;11) 'Mama, tell me about those people.' SF Maman, parle-moi de ces gens.

1.21.(ii) Examples of loanshifts where the nature of the point of contact is phonetic-semantic.

1. A cette place, je perds pas ma balance. (6;4) 'At that place (on the log), I don't lose my balance.' SF A cet endroit, je ne perds pas mon équilibre.
2. Ils ont des arguments. (6;5) 'They have arguments.' SF Ils se disputent.
3. Elle juste vient d'arriver. (6;7) 'She just arrived.' SF Elle vient d'arriver.
4. Juste terrible! (6;7) 'Just terrible!' SF Absolument terrible!

5. Quel *nombre*? (6;8) 'Which number?' SF Quel *numéro*?
6. Il y a une ${}_{F}$*place* qui s'appelle Danemark. (6;8) 'There is a place called Denmark.' SF *Il y a un pays qui s'appelle le Danemark*.
7. Child: Tu vas retourner travailler ce soir? 'Are you going to go back to work tonight?' Father: Oui. 'Yes'. Child: A ta ${}_{F}$*course*? 'On your course?' Father: Quoi? 'What?' Child: On your ${}_{E}$*course*. (6;9) SF *cours* (m.) /kur/ 'course'; *course* (f.) /kurs/ 'errand'.
8. Vous avez fait de la *monnaie*? (6;10) 'Did you (p.) make any money?' SF *argent* 'money'; *monnaie* 'change'.
9. J'ai *juste* bu. (6;10) 'I just drank (a few moments ago).' SF *Je viens de boire*.
10. Ça sent *terrible*! (6;10) 'That smells terrible!' *Ça sent mauvais*!

1.22. *Loanshifts*. *Examples in English Utterances*. (French = model language; English = replica language.)

1.22.(i) *Examples of loanshifts where the nature of* *the point of contact is semantic*.

1. *Itch* my back. (6;6) 'Scratch my back.' SF *Gratte-moi le dos*.
2. I want you to *learn* me to knit. (6;6) 'I want you to teach me to knit.' SF *apprendre* 'to learn', 'to teach'.
3. I want to *learn* Garret how to count money. (6;6) 'I want to teach Garret how to count money.' SF *Je veux apprendre à Garret comment compter l'argent*.
4. The color of those shoes is a little bit *sad*. (6;6) 'The color of those shoes is a little bit drab.' SF *La couleur de ces chaussures est un peu triste*.
5. $_F$Papa[9] has to *make me learn* good manners. (6;8) 'Dad has to teach me good manners.' SF *Papa doit m'enseigner de bonnes manières*.
6. Can't you *wind* up my sleeves? (6;8) 'Can't you roll up my sleeves? SF *Ne peux-tu pas remonter mes manches*? Cf. *remonter une montre* 'to wind a watch'.
7. Boy! Does that smell *hard*! (6;8) 'Boy! Does that smell strong!' SF *Ça sent fort*! *fort* 'strong'.

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[9] In referring to her parents in English, the child may use *mother* or *mom*, *father*, *dad* or *daddy*, cf. (1.12.(i), 7). She uses $_F$*Papa* and *Maman* exclusively in addressing her parents, even when speaking English.

Cf. *frapper fort* 'to strike hard'.

8. When they (shoes) are shined, they look like they are in *the Middle Ages*. (6;8) 'When they are shined, they don't look too old.'[10] SF *Quand elles brillent, elles n'ont pas l'air trop vieilles*.

9. She had them when she was two and she *itched* them. (6;9) 'She had it (chicken pox) when she was two and she scratched them (the eruptions on the skin).' SF *Elle l'a eue* (*la varicelle*) *quand elle avait deux ans et elle se grattait*.

10. Child: It's Tod's turn. Mother: *Ce ne sont pas les invités qui font des courses*. Child: I guess I'll have *to go shopping*![11] (6;9) SF *faire des courses* 'to go shopping, to do errands'.

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[10] Although this interference could conceivably be of non-French origin (perhaps from expressions like *middle-aged man*, etc.), the child's knowledge of *Le Moyen Age* 'The Middle Ages' and *âge moyen* 'average age' is probably a contributing factor.

[11] It is possible that this is the child's version of a bilingual joke.

11. I like to have $_F$mon manteau *shut*. (6;10) 'I like to have my coat buttoned.' SF *J'aime avoir mon manteau fermé*. *fermer* 'to close, to shut'.

12. Let me *jump* it. (6;10) 'Let me flip it (speaking of a French pancake).' SF *Laisse-moi la faire sauter*. *sauter* 'to jump'.

13. I am going to *jump* her. (6;10) 'I am going to flip it.' SF *Je vais la faire sauter*.

14. He *has* thirty-seven or thirty-eight. (6;11) 'He is thirty-seven or thirty-eight years old.' SF *Il a trente-sept ou trente-huit ans*.

15. I want you to *learn* me to play bridge. (6;11) 'I want you to teach me to play bridge.' SF *apprendre* 'to learn', 'to teach'.

16. We *took* it down. (6;11) 'We brought it down (here).' SF *Nous l'avons descendu*. *descendre* 'to take down, to bring down'.

17. They do have the same *head*. (7;0) 'They do look alike.' SF *C'est vrai qu'ils ont la même tête*. *tête* 'head'.

1.22.(ii) *Examples of loanshifts where the nature of the point of contact is phonetic-semantic*.

1. I have to look for my Washington and Oregon *cards*. (6;8) 'I have to look for my Washington and Oregon maps.' SF *carte* 'map'.
2. Isn't that water *fresh*? (6;8) 'Isn't that water cold (for drinking purposes)?' SF *fraîche* 'cool'.
3. My jeans, they are *solids*. (6;9) 'My jeans are sturdy.' SF *Mes blue-jeans sont solides*.[12]
4. She has children *at the chain*. (6;9) 'She has one child after another.' SF *Elle a des enfants à la chaine*.
5. She thinks she is the *commander* of all the children.[13] (6;9) 'She thinks she is the boss of all the children.' SF *Elle se prend pour le chef de tous les enfants*.
6. I need more water for my *experience*. (6;10) 'I need more water for my experiment.' SF *expérience* 'experiment'.
7. If you push them back in the *cords*. (6;10) 'If you push them back into the ropes (of a boxing ring).'

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[12] The following conversational exchange took place at 7;1: Child: "These jeans are solider." Mother: "Tu veux dire 'more solid'." Child: "No, we're both wrong. I mean 'stronger'."

[13] This utterance immediately followed the French utterance: $_E$*Miss M*... $_F$*veut commander tout le monde*.

SF *corde* 'rope'.

8. We have to *nourish* one at the bottom. (6;11) 'We have to water one (a plant) by putting the water in the container beneath it.' SF *nourrir une plante* 'to water or feed a plant'.
9. They are the right *form*. (6;11) 'They (shoes) are the right shape.' SF *forme* 'shape'.
10. Can you take out that *gum* of "Big Mo"? (6;11) 'Can you take that eraser off "Big Mo"?' SF *gomme* 'eraser'.
11. Doris can eat the *rest*-overs. (7;0) 'Doris can eat the left-overs.' SF *les restes* 'left-overs'.
12. How long has ${}_{F}$Etienne been *rolling*? (7;2) 'How long has Etienne been on the road?' SF *Depuis combien de temps Etienne roule-t-il*? *rouler en voiture* 'to travel in an automobile'.

1.23. *Notes*. This section contains a brief discussion of interlingual structural confusion which is seen as a contributing factor in loanshift extension.

(i) *Grammatical aspects*. Several utterances in 1.21 and 1.22 suggest that grammatical structure is a factor in loanshift extension. Interference of this kind is apparent whenever the distribution of a form in the replica language is extended to environments in which it would not normally occur on the analogy of the model language.

An example of interference in the contrast between nouns and verbs occurs when the substantive *poisson* 'fish' (1.21(i);7) is used for the imperative function of the verb on the model of English where the noun and verb are identical in form. This occurs even though the child knows the verb *pêcher* 'to fish'.

The loanshift *juste* 'just' appears in three examples. *Juste terrible* 'Just terrible' (1.21(ii);4) illustrates an extension of *juste* to include adjective-modifier on the model of English. *Elle juste vient d'arriver* 'She just arrived' (1.21(ii);3) and *J'ai juste bu* 'I just drank' (1.21(ii;9) illustrate extensions of *juste* to mean 'immediate past action', again on the model of English, and concomitantly an extension in function to verb-modifier.

The treatment of certain verbs illustrates interference in the transitive and intransitive categories. The verb *itch*, usually intransitive in English, has been used transitively in the examples *Itch my back* (1.22(i);1) and *She had* *them when she was two and she itched them* (1.22(i);9) on the model of the verb *gratter* 'to scratch, to itch'. The verb *pousser* 'to grow' (1.21(i);1,10) which may be either transitive or intransitive, has undergone an extension of its transitive function under the influence of the English model 'to grow a beard'. At age 7;1, the child gave evidence, in the English utterance *I want you to let grow a beard*, that she probably knows, if only passively, the SF expression *laisser pousser une barbe* where *pousser* occurs intransitively.

On the model of the English copular verb *look*, the normally transitive verb *regarder* 'to look' (1.21(i);13,14,15) has undergone extension as, for example in *Elle regarde mieux maintenant* 'She looks better now'.

The verbs *connaître* and *savoir* 'to know' contrast structurally in that only *savoir* may be followed by a dependent clause, whereas in English, *to know* is not restrictive regarding the filler of its complement slot. While the point of contact in the extension of both *connaître* (1.21(i);4) and *savoir* (1.21(i);19,23) is most probably lexical, in the interference process, the child, in effect, changes the class of these verbs.

CHAPTER 2.

GRAMMATICAL INTERFERENCE

2.0. Introduction. This chapter includes examples of interference which may be attributed to the child's knowledge of various structural features of English and French.

Attention has been called to theoretical and methodological disagreement on the whole question of whether languages in contact actually influence each other grammatically (Weinreich 1953, 29). Arguing against the possibility of penetration at the morphological level, Meillet (1958, 82) wrote: ". . . les systèmes grammaticaux de deux langues sont . . . impénétrables l'un à l'autre." Sapir (1927, 217), while not discounting the possibility of large-scale morphological influences, held, nevertheless, that recorded linguistic history reveals nothing more than "superficial morphological interinfluencings."

Pap (1949, 83-85), found no evidence of modification of Portuguese morphology under English influence, but did observe "a slight degree" of interference at the syntactical level, including the construction of phrase words, e.g., Português Recreativo Club (instead of Club Recreativo Português).

Earlier, Bloomfield (1933, 453) had written: "Grammatically, the borrowed form is subjected to the system of the borrowing language, both as to syntax ... and the fully current, 'living' constructions of composition ... and word-formation." Bloomfield's choice of the expression "subjected to the system" indicates that structurally, not only would the recipient language remain unaffected by casual borrowings, but that it would assert its dominance by subjecting the loan "to the same analogies as any similar native word" (1933, 454).

The opposite view, i.e., supporting mutual grammatical influence at the morphological level in language contact, was expressed by Schuchardt (1928, 195). More recently, Bazell (1949, 303) maintained that morphological systems are indeed open to mutual penetration. Rosetti (1945-49, 73-79), in his discussion of language mixture, stresses the importance of the results of grammatical interference in establishing the criterion "interpénétration de deux morphologies" in distinguishing between a langue mixte and a langue mélangée. He concluded that no language is entirely free of mélange, but that this type of mixture remains at the level of lexical borrowing. On the other hand, there are only a limited number of langues mixtes, i.e., where there is evidence of morphological, as well as phonological and lexical interference.[1]

[1] See Weinreich (1953), 33, fns. 13 and 15.

The conflicting ideas mentioned above are perhaps more relevant when the problem is one of interlingual influence over long periods of time and involving many speakers. In attempting to give perspective to these divergent views regarding the transferability of grammatical elements, Zawadowski (1958, 808) remarks: "It is necessary to distinguish (1) transmission of material elements, which have either (a) lexical function (e.g., stems) or (b) grammatical function (e.g., inflectional endings), and (2) transmission of grammatical facts, which are only *relations*."

In relating Zawadowski's statement to this study, it might be noted that the data yielded by this child's speech, as analyzed, show no transmission of "material elements" having grammatical function. What, for example, may first appear to be the transfer of the English plural suffix /z/ in the utterance *I don't like* $_F$*chemises de nuit* + /z/ (1.12(ii);2), is perhaps better seen as the transfer of the French lexical item *chemises de nuit* into a clearly established English grammatical frame. On the other hand, had the child said **Je n'aime pas les chemises de nuit* + /z/, the interference could have been analyzed as the transmission of an English grammatical suffix into an otherwise French grammatical frame. No interference of this kind has been noted. There is, however, considerable evidence of interference involving grammatical relations, as, for example, word order, in the utterance

Le bleu bateau. (6;7) 'The blue boat.' SF Le bateau bleu.

where an English syntactical rule has been applied to French morphemes.

Since this study is purely synchronic in nature and makes no pretense of relating to diachronic aspects of language drift, etc., the grammatical interference described here seeks merely to show that in the case of this particular bilingual child who controls the various morphemes and grammatical relationships which make up her two structural systems, there may be, in active speech, a considerable amount of interference. This important distinction between interference in language and interference in speech is summarized by Weinreich (1953, 11): "In speech, interference is like sand carried by a stream; in language, it is the sedimented sand deposited on the bottom of a lake. The two phases of interference should be distinguished. In speech, it occurs anew in the utterances of the bilingual speaker as a result of his personal knowledge of the other tongue. In language, we find interference phenomena which, having frequently occurred in the speech of bilinguals, have become habitualized and established. Their use is no longer dependent on bilingualism. When a speaker of language X uses a form of foreign origin not as an on-the-spot borrowing from language Y, but because he has heard it used by others in X-utterances, then this borrowed element can be considered, from the descriptive viewpoint, to have become a part of LANGUAGE X."

Here, it is believed that the child has had no access to any exterior source of linguistic interference. She rarely speaks with English-French bilinguals other than her parents who, with the exception of the use of a few "family anglicisms" and in naming American cultural items, do not mix the two languages. Her interference, then, is seen as the product of the encounter of two linguistic systems within a single individual.

For purposes of discussion and presentation of examples of the various types of grammatical interference occurring in the child's speech, two main categories have been established: Grammatical relations (2.1) and Extension of grammatical morphemes (2.2).

2.1. Grammatical relations. The data show that interference due to misapplication of grammatical relations (syntactic substitutions, order, agreement, and stress) has been quite prevalent during the period in which the child's speech was observed.

According to Weinreich (1953, 39): "This type of interference is so very common because grammatical relations, not being segments of utterances, are least noticed by naïve speakers."

The criterion for separating Syntactic substitutions (2.11) from Word order (2.12) may appear to be arbitrary, inasmuch as both deal with the order in which morphemes are emitted in speech. In separating the two, however, it is possible to draw attention to the fact that in Word order the morphemes are 'correct' from the adult-monolingual point of view,[2] whereas in Syntactic substitutions the knowledge of the pattern from the model language leads the child to employ 'incorrect' morphemes. For example, in the utterance

> Maman a acheté ça d'un petit garçon. (6;7) 'Mother bought that from a little boy.'

the English model sequence to buy from causes the child to employ the French sequence *acheter de rather than acheter à. On the other hand, in the utterance

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[2] Except for the few examples involving morpheme alternates. See section 2.12.1.(ii).

J'aime ça mieux. (6;4) 'I like that better.'

the English model sequence like that better results in 'correct' French morphemes in an 'incorrect' French syntactical pattern, i.e., *aime ça mieux rather than aime mieux ça.

Also included in this section are examples of interference which are due to knowledge of rules of Agreement (2.13) which are not always coordinate in the two languages, as, for example, when the child uses the pronoun she to refer to inanimate objects on the model of the French pronoun elle, or to knowledge of English Stress (2.14) which has led to the producing of utterances which may be made up entirely of correct French segmental morphemes but where stress alone bears evidence of English influence.

2.11. Syntactic substitutions. In presenting the examples of interference included under the heading Syntactic substitutions, there are several assumptions to be made about the interlingual identification process in order to establish a rationale for the creation of this descriptive category.

First, it is assumed that the child controls her two languages with certain degrees of proficiency. From this, it follows that she controls the specific permissible syntactic frames in each language (filled, of course, with correct morphemes) which serve as models for the interference. What she seemingly ignores is that syntactical rules governing her two languages are not always coordinate and thus, in active speech, the result is interference.

Now it might be possible to classify this type of interference in the child's speech as lexical, more specifically as a kind of loanshift extension of the morphemes involved. It is clear, however, that in the utterance

> Je cherche pour le livre. (6;4) 'I am looking for the book.' SF *Je cherche le livre*.

the occurrence of the morpheme *pour* is due to the child's knowledge of the English syntactical frame *looking for the book*. Therefore, this example is not analyzed as a lexical extension of the meaning of *pour* on the analogy of English *for*. On the other hand, in an utterance such as *Ô maintenant*! (1.21(i);2) the source of interference is not structural, but rather the morpheme *maintenant* occurs with extended lexical meaning only, for the model *now* occurs in an identical syntactical frame.

Frequently, in this type of interference, the result is not unlike word-for-word translation from one language to another, as, for example, in the utterance

Il est fait de bois. (6;6) 'It is made of wood.'

SF Il est en bois.

There is no outward indication, however, in the guise of slowed speech or obvious searching for word equivalents, that the child is consciously translating.

It is also possible to note instances where the utterance, while giving evidence of its model, shows at the same time some attempt at adaptation to certain aspects of the replica grammar. For example, in the utterance

Quand on va sur les pique-niques. (6;4) 'When we go on picnics.' SF Quand on va en pique-nique.

it is not clear whether the article les is included in order to signal plurality, or whether it is included to conform to the requirement of an article after the preposition sur, or, for that matter, both. In either case it represents an adaptation according to the requirements of French grammar.

Often, the specific point of interlingual identification may be found within the utterance in the form of a function word (preposition or conjunction) as in the example Je cherche pour le livre cited above, where the function word pour has been included as a result of the use of for in the

English model. The reverse process can be seen in the utterance

Je vais dire la classe. (6;6) 'I am going to tell the class.' SF Je vais le dire à la classe.

where both the preposition à and the pronoun le have been omitted because of the influencing English pattern (see 2.11.3).

The data included in this section show that most of the utterances when translated into the model language begin with equivalent morphemes in similar patterns of distribution. Interference does not become evident until later in the utterance. Significantly, however, the onset of interference is never marked by a pause.

2.11.1. Syntactic substitutions: Examples in French utterances. (English = model language; French = replica language.)

1. Je cherche pour le livre. (6;4) 'I am looking for the book.' SF Je cherche le livre.
2. Attends pour moi. (6;4) 'Wait for me.' SF Attends-moi.

3. Quand on va sur les pique-niques. (6;4) 'When we go on picnics.' SF *Quand on va en pique-nique*.

4. C'est très chaud dans l'été. (6;4) 'It is very hot in summer.' SF *Il fait très chaud en été*.

5. On allait sur notre vacance. (6;5) 'We were going on our vacation.' SF *On allait en vacances*.

6. J'ai beaucoup d'amis que je marche avec. (6;5) 'I have a lot of friends that I walk with.' SF *J'ai beaucoup d'amis avec lesquels je fais le trajet*.

7. J'ai regardé à ça! (6;6) 'I have looked at that!' SF *J'ai regardé ça*.

8. La celle qui a huit ans. (6;6) 'The one who is eight years old.' SF *Celle qui a huit ans*.

9. Il est un garçon. (6;6) 'It is a boy.' SF *C'est un garçon*.

10. Il est fait de bois. (6;6) 'It is made of wood.' SF *Il est en bois*.

11. Je vais dire la classe. (6;6) 'I am going to tell the class.' SF *Je vais le dire à la classe*.

12. Ça goûte comme une brioche. (6;6) 'That tastes like a brioche.' SF *Cela a goût de brioche*.

13. Il regarde comme son père. (6;6) 'He looks like his father.' SF *Il ressemble à son père*.

14. Elle regarde comme sur la télévision. (6;6) 'She looks like on television.' SF *Elle est la même qu'à la télévision*.

15. J'ai tout fini avec ça. (6;7) 'I am all finished with that.' SF *Je ne veux plus cela; j'ai fini*.

16. J'ai fait mal à une de mes dents. (6;7) 'I hurt one of my teeth.' SF *Je me suis fait mal à une dent*.

17. Maman a acheté ça d'un petit garçon. (6;7) 'Mother bought that from a little boy.' SF *Maman a acheté ça à un petit garçon*.

18. Il va aller sur le bateau. (6;7) 'He is going to go on the boat.' SF *Il va aller en bateau*.

19. Tu peux dire ça encore! (6;7) 'You can say that again!' SF *Tu as entièrement raison*.[3]

20. Les gens croient pas il est un vrai alligator. (6;8) 'The people don't believe he is a real alligator.' SF *Les gens ne croient pas qu'il soit un vrai alligator*.

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[3] See section 2.14.3.

21. C'était été. (6;8) 'It was summer.' SF C'était l'été.

22. C'était très bonne qualité. (6;8) 'It was very good quality.' SF C'était de très bonne qualité.

23. Elle sent comme la mer. (6;8) 'It smells like the sea.' SF Ça sent la mer.

24. Il y a une place qui s'appelle Danemark. (6;8) 'There is a place which is called Denmark.' SF Il y a un pays qui s'appelle le Danemark.

25. Papa était furieux avec moi. (6;8) 'Papa was furious with me.' SF Papa était furieux contre moi.

26. Regarde à Marie-Noël. (6;8) 'Look at Marie-Noël.' SF Regarde Marie-Noël.

27. Regarde aux poissons. (6;8) 'Look at the fish.' SF Regarde les poissons.

28. Tu veux regarder à les bandes? (6;8) 'Do you want to look at the tapes?' SF Tu veux regarder les bandes?

29. Qu'est-ce que tu cherches pour? (6;8) 'What are you looking for?' SF Qu'est-ce que tu cherches?

30. Elle est cuite sur l'autre côté. (6;8) 'It is cooked on the other side.' SF Elle est cuite de l'autre côté.

31. J'y vais sur ma bicyclette. (6;8) 'I am going on my bicycle.' SF *J'y vais à bicyclette*.

32. Tourne-toi sur mon côté. (6;8) 'Turn over on my side.' SF *Tourne-toi de mon côté*.

33. Ça regarde comme de Gaulle à moi. (6;8) 'That looks like de Gaulle to me.' SF *Je trouve qu'il ressemble à de Gaulle*.

34. Il regarde comme il est parisien. (6;8) 'He looks like he is Parisian.' SF *Il a l'air d'un Parisien*.

35. Il a l'air d'une "bibine" à moi. (6;8) 'It looks like extremely weak coffee to me.' SF *On dirait de la* "*bibine*."

36. Qui est ça pour? (6;9) 'Who is that for?' SF *Pour qui est-ce*?

37. Je suis faim. (6;9) 'I am hungry.' SF *J'ai faim*.

38. Je suis soif. (6;9) 'I am thirsty.' SF *J'ai soif*.

39. Qui est-ce que c'est sur le téléphone? (6;9) 'Who is it that's on the telephone?' SF *Qui est au téléphone*?

40. J'ai juste un plus à faire. (6;9) 'I have just one more to do.' SF *Je n'en ai plus qu'un à faire*.

41. J'ai regardé pour la pince à sucre. (6;9) 'I looked for the sugar tongs.' SF *J'ai cherché la pince à sucre*.

42. Laisse-moi voir comment je regarde dans le miroir. (6;9) 'Let me see how I look in the mirror.' SF *Laisse-moi me regarder dans la glace*.

43. Je peux aller à la maison de une de les filles. (6;9) 'I can go to one of the girls' houses.' SF *Je peux aller chez une des filles*.

44. Marie-Noël, tu apprends à jouer la guitare? (6;9) 'Marie-Noël, are you learning to play the guitar? SF *Marie-Noël, tu apprends à jouer de la guitare*?

45. Moi, je peux jouer le violon. (6;9) 'As for me, I can play the violin.' SF *Moi, je peux jouer du violon*.

46. Tu taquines! (6;10) 'You're teasing!' SF *Tu me taquines*!

47. Ça a l'air comme l'Aiguille du Midi à toi? (6;10) 'Does that look like the *Aiguille du Midi* to you?' SF *Tu trouves que cela ressemble à l'Aiguille du Midi*?

48. Monsieur et Madame Pomme viennent pour dîner. (6;10) 'Mr. and Mrs. Appel are coming for dinner.' SF *Monsieur et Madame Appel viennent dîner*.

49. Tu souviens cela? (6;11) 'You remember that?' SF Tu te souviens de cela?

50. C'est quelque chose important. (6;11) 'It is something important.' SF C'est quelque chose d'important.

51. Je manque Marie-Noël. (6;11) 'I miss Marie-Noël.' SF Marie-Noël me manque.

52. Je peux avoir un plus 'cookie' /kuki/?[4] (7;0) 'May I have one more cookie?' SF Je peux avoir un autre gâteau?

2.11.2. Syntactic substitutions: Examples in English utterances. (French = model language; English = replica language.)

1. That dress I haven't put on since one year. (6;8) '(I mean) that dress I haven't put on for a year.' SF Cette robe que je n'ai pas mise depuis un an.
2. More farther. (6;8) 'Farther.' SF Plus loin.[5]
3. Open me the door. (6;10) 'Open the door for me.' SF Ouvre-moi la porte.
4. We'll go in one hour and /n/ half. (6;11) 'We'll go in one hour and a half.' SF Nous partirons dans

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[4] /kuki/ 'cookie' represents a family anglicism.

[5] For a comparable situation involving Ukranian-Rumanian bilingualism, see Weinreich (1953), 34.

une heure et demie.

5. Can we buy three balls of tennis? (6;11) 'Can we buy three tennis balls?' SF *Pouvons-nous acheter trois balles de tennis*?
6. After a long $_F$chaine of mountains? (6;11) 'After a long mountain range? SF *Après une longue chaine de montagnes*?
7. She wouldn't eat like four. (7;1) 'She wouldn't eat like a pig.' SF *bouffer comme quatre* 'to eat like a pig'.
8. I want you to let grow a beard. (7;1) 'I want you to let your beard grow.' SF *Je veux que tu te laisses pousser la barbe*.

2.11.3. *Notes*. While the more common result of the interference in *Syntactic substitutions* seems to be the addition or reinterpretation of a grammatical morpheme, analysis of the sixty examples in this section yields ten French and two English utterances where the transfer of a syntactic pattern from the model language brings about the loss of a specific grammatical morpheme in the replica utterance.

The classes of grammatical morphemes eliminated are: preposition (2.11;10,21,43,44,48,49, and 2.11.2;3), article (2.11.1;20,23,and 2.11.2;4), pronoun (direct object: 2.11.1; 10,45,48, and relative: 2.11.1;19).

2.12. Word order. In this section examples are given of interference which are the result of imposition of rules of word order from the model language upon morphemes of the replica language. Examples in French are found in 2.12.1; 2.12.2 is empty, as no equivalent interference pattern in the child's English has been observed.

The utterances in 2.12.1 have been subdivided. Those in 2.12.1(i) are composed of morphemes which are correct in form and content. Only the order in which the morphemes are emitted gives evidence of the child's knowledge of English. For example, in the utterance

C'est un difficile jeu. (6;10) 'It is a difficult game.' SF C'est un jeu difficile.

only the order 'modifier-modified' rather than the reverse marks the utterance as having been influenced by English. A parallel situation, involving an adverb rather than an adjective, is found in the utterance

Ça vraiment pique. (6;7) 'That really stings.' SF

Ça pique vraiment.

The utterances in 2.12.1 (ii) illustrate the effect of word order from the model language upon morpheme alternates in the replica language. All examples illustrate different forms of pronouns. The utterance

$_E$Bob veut parler à toi. (6;5) 'Bob wants to talk to you.' SF Bob veut te parler.,

for example, illustrates the use of French morphemes in an English syntactical frame. Further analysis shows, as well, that the child's command of the form and distribution of morpheme alternates intervenes in the interference process, causing her to choose the stressed form toi /twa/ rather than the unstressed form te /tə/ because of the position of the morpheme you in the influencing English pattern.

It should be noted that in none of the utterances included in 2.12.1 (ii) did the child, through intonation or stress, demonstrate an intention to convey emphasis.

2.12.1(i) Word order: Examples in French utterances.

(English = model language; French = replica language.)

1. J'aime ça mieux. (6;4) 'I like that better.' SF *J'aime mieux ça*.
2. Ça vraiment pique! (6;7) 'That really stings.' SF *Ça pique vraiment*.
3. Ils s'amusent à faire le bateau tourner. (6;7) 'They are having fun making the boat turn.' SF *Ils s'amusent à faire tourner le bateau*.
4. Où est-ce qu'il vient de? (6;7) 'Where does it come from?' SF *D'où est-ce qu'il vient*?
5. Le bleu bateau. (6;7) 'The blue boat.' SF *Le bateau bleu*.
6. A Noël j'avais un terrible rhume. (6;8) 'At Christmas I had a terrible cold.' SF *A Noël j'avais un rhume terrible*.
7. On a fait cette grenouille sauter. (6;8) 'We made that frog jump.' SF *On a fait sauter cette grenouille*.
8. Fais le feu éclater. (6;8) 'Make it catch fire.' SF *Fais partir le feu*.
9. Ils tous couchent par terre. (6;8) 'They all sleep on the floor.' SF *Ils couchent tous par terre*.
10. Qui est-ce que ces cartes viennent de? (6;8) 'Who do those cards come from? SF *De qui est-ce que ces cartes viennent*?

11. Comme cette dame fait. (6;9) 'As that lady does.' SF Comme fait cette dame.
12. Je joue avec $_{E}$Michael mieux. (6;10) 'I play with Michael better.' SF Je joue mieux avec Michael.
13. Comment grand? (6;10) 'How big?' SF Grand comment?
14. C'est un difficile jeu. (6;10) 'It is a difficult game.' SF C'est un jeu difficile.
15. Toi, tu fais la fumée sortir de ton nez. (6;10) 'You, you make the smoke come out of your nose.' SF Toi, tu fais sortir la fumée de ton nez.
16. Où est-ce qu'elle vient de? (6;10) 'Where does she come from?' SF D'où est-ce qu'elle vient?
17. Tu vraiment aimes la bière? (6;11) 'You really like beer?' SF Tu aimes vraiment la bière?
18. Papa, tu sais où "Tin-Tin" est? (7;0) 'Papa, do you know where "Tin-Tin" is?' SF Papa, tu sais où est "Tin-Tin"?
19. Est-ce que quelqu'un sait où ma raquette de tennis est? (7;0) 'Does anyone know where my tennis racket is?' SF Est-ce que quelqu'un sait où est ma raquette de tennis?
20. Tu fais ce pistolet marcher. (7;1) 'You are making that pistol shoot.' SF Tu fais marcher ce pistolet.

2.12.1.(ii) *Word order*: *Examples in French utterances*. (English = model language; French = replica language. Model language determines choice of alternate forms in the replica language.)

1. J'attends pour toi. (6;5) 'I am waiting for you.' SF *Je t'attends*.
2. $_{E}$Bob veut parler à toi. (6;5) 'Bob wants to speak to you.' SF *Bob veut te parler*.
3. Il fait des grimaces à moi. (6;6) 'He is making faces at me.' SF *Il me fait des grimaces*.
4. J'ai entendu toi le dire. (6;7) 'I heard you say it.' SF *Je t'ai entendu le dire*.
5. Maman, je peux parler à toi? (6;8) 'Mother, may I speak to you?' SF *Maman, je peux te parler*?

2.13. *Agreement*. The category *Agreement* has been subdivided into *Gender* (2.13.1) and *Number* (2.13.2).

2.13.1. *Gender*. This section contains examples of interference caused by the transfer of gender relationships from the model language to the replica language. 2.13.11 contains no examples; 2.13.12 contains examples of French influence upon English.

When two languages, one having the obligatory category of gender and the other lacking it, come into contact, there is a high probability that there will be confusion in cases of interlingual identification. It has already been noted that the child's English loanwords have been assigned masculine gender exclusively (see 1.13.(ii)). Since English does not have an expression of the category of gender in nouns (but only in the pronouns of reference), the child's French loanwords automatically lose this distinction when removed from French and put into English sentences (see 1.12).

In his discussion of interference involving gender in the speech of Norwegian-American bilinguals, Haugen (1953, 440 ff.) characterizes gender as "a quality attributed to each noun which determines the choice among alternative forms of accompanying articles, adjectives, and pronouns of reference." Insofar as could be ascertained, the child never violated this system of agreement when speaking French, although it might be reasonable to assume that she would under the influence of English. In this respect, this particular child seems to refute Weinreich's statement (1953, 39) that grammatical relations of this type might be neglected by naîve speakers. In other words, there are examples where adjectives are placed in incorrect word order in relation to the noun modified, but no examples where adjectives fail to agree with nouns.

In this section, attention is called specifically to those instances where gender does operate in the English structural system, viz., the third person singular pronouns of reference. Although the examples are few, they all seem to be substitutions of the feminine for the neuter. It is not known what significance may be drawn from this fact.

2.13.12. Gender: Examples in English utterances.

(French = model language; English = replica language.)

1. She's alive! (6;6) 'It's alive!' mouche (f.) 'fly'.
2. I got her. (6;8) 'I got it.' serviette (f.) 'napkin'.
3. She doesn't function any more; she's lost her voice. (6;9) 'It doesn't work any more; it doesn't strike.' pendule (f.) 'clock'. SF Elle ne fonctionne plus; elle a perdu sa voix.
4. She is all mixed up. (6;10) 'It is all mixed up.' pendule (f.) 'clock'.
5. Would you say she's ready? (6;10) 'Would you say it's ready (to be turned)? crêpe (f.) 'pancake'.
6. I am going to jump her. (6;10) 'I am going to flip it.' crêpe (f.) 'pancake'.

7. Why don't we keep her until tomorrow morning? (6;11) 'Why don't we keep it until tomorrow morning?' crêpe 'pancake'.

2.13.2. Number. While both English and French have the category of number, the application of this distinction in the two languages is not always parallel.[6] The examples given in this section show that certain terms which are plural in the model language have influenced corresponding items in the replica language. For example, in analyzing the utterance

They left all the baggages there. (6;11) 'They left all the luggage there.' les bagages 'baggage, luggage'

it is assumed that under the influence of the model language, the addition of the suffix /əz/ to the English mass noun baggage seems necessary to the child in order to express the plurality indicated in French by the determiner les.

2.13.21. Number: Examples in French utterances. (English = model language; French = replica language.)

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[6] For a related discussion, see Haugen (1953), 449 ff.

1. On allait sur *notre* *vacance*.[7] (6;5) 'We were going on our vacation.' SF *On* *allait* *en* *vacances*. *vacances* (p.) 'vacation', *vacance* (s.) 'vacancy'.

2.13.22. *Number*: *Examples* *in* *English* *utterances*.

(French = model language; English = replica language.)

1. They left all the *baggages* there. (6;11) 'They left all the luggage there.' *les* *bagages* (p.) 'baggage, luggage'.
2. Look how long my *hairs* *are*![8] (6;11) 'Look how long my hair is!' *mes* *cheveux* (p.) 'my hair'.
3. Who likes *them*? (7;0) 'Who likes it?' *les* *épinards* (p.) 'spinach'.
4. *They*'re good. (7;0) 'It's good.' *les* *spaghettis* (p.) 'spaghetti'.

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[7] Here, the interference is not apparent in the phonetic shape of the noun, but, in accordance with the French system where the determiner alone usually signals singularity vs. plurality, the child's use of *notre* instead of *nos* indicates the interlingual identification.

[8] Agreement can be seen in the verb *are*.

2.14. Stress. The examples included in this section illustrate the influence of the emphatic use of English stress upon the child's French. A particular French morpheme, the equivalent, or translation, of the morpheme which would legitimately bear the stress in the English model, has been singled out for emphasis. For example, in the utterance

C'était 'son idée. (6;6) 'It was her idea.'

SF C'était son idée à elle.

the stress on son reflects the possibility in English of expressing "It was her idea, not mine" by saying "It was 'her idea", with the contrastive stress on her conveying the desired meaning.

From the examples given, it can be seen that this procedure has been incorporated into the child's French, thus violating the phonological system of SF which, in order to convey equivalent meaning, requires, in general, additional morphemes.

In this category, as in 2.13.1, the interference is only in one direction.

2.14.1. contains examples of the influence of English upon French; there are no examples in 2.14.2.

2.14.1. Stress: Examples in French utterances.

(English = model language; French = replica language.)

1. C'était 'son idée. (6;6) 'It was her idea.' SF C'était son idée à elle.
2. Tu peux dire 'ça encore! (6;7) 'You can say that again!' SF Tu as entièrement raison!
3. C'est 'sa main. (6;9) 'It is his hand.' SF C'est sa main à lui.
4. Où est-ce 'qu'elle vient de? (6;10) 'Where does she come from?' SF D'où est-ce qu'elle vient, elle?
5. 'Maman me laisse. (6;11) 'Mother lets me (why won't you?).' SF Maman me laisse, elle.
6. Va mettre 'ton $_F$kilt. (7;1) 'Go put on your kilt.' SF Va mettre ton kilt à toi.

2.14.3. Notes. The English utterance You can say that again, with primary stress on again, would be interpreted as permission or affirmation of ability to repeat what had just been said. The same utterance with primary stress shifted to that takes on the meaning I agree with you completely. It is this latter meaning with accompanying stress pattern, which has influenced the French. The child remarked later that the source of her utterance (2.14.1;2) was English.

Two utterances may be cited as illustrating a more complex form of interference involving stress. They differ from those included in 2.41.1 in that the morpheme bearing primary stress is, from the point of view of SF, 'incorrect'. For example, in the utterance

> Tu veux me passer 'les? (6;6) 'Will you pass me those? SF Tu veux me passer ceux-là?

the unstressed direct object pronoun les has been moved syntactically to final position in the utterance, the position which, in French, normally receives primary stress. There has been no attempt, however, to alter the morpheme formally or to use the SF demonstrative pronoun which it may be assumed that the child knows. The discriminatory function of the SF demonstrative pronoun is accomplished in the child's utterance by changing the syntactical position of les and giving it primary stress. It should be noted also that the utterance was accompanied by a reinforcing gesture of the hand.

In the utterance

> Moi, je peux faire 'mon pour les jumeaux. (6;7) 'As for me, I can make mine for the twins.' SF Moi, je peux faire le mien pour les jumeaux.

the bound morpheme mon is treated as a free form capable of bearing stress. The English stress pattern is carried over into French and the morpheme which bears primary stress happens in addition to be incorrect.

2.2. Extension of grammatical morphemes. The examples of interference in this section have been divided into Extension of free morphemes (2.21) and Extension of bound morphemes (2.22).

2.21. Extension of free morphemes. The interference illustrated in the utterances included in this section is similar to that in 1.2, Loanshifts, where morphemes were shown to have been extended beyond normal margins of lexical designation. Here, the grammatical function of a morpheme from the replica language, through identification with a morpheme and its function in the model language, is extended beyond accepted adult-monolingual norms.

The pattern that emerges from the interference illustrated here seems to indicate that the child has perceived the wider distribution of the grammatical morpheme in the model language and has then attempted to extend the distribution of the morpheme in the replica language with which identification has been made. For example, in the utterance

> C'est une mieux cabine que la mienne. (6;5) 'It is a better cabin than mine.' SF C'est une meilleure cabine que la mienne.

the French adverb mieux is extended on the model of the English morpheme better which functions as adverb and adjective.

Similarly, the various grammatical functions of the morpheme what has caused considerable interference in the child's speech. The interlingual identification seems to have been made at the interrogative level. From there, the phrase qu'est-ce has been given an extended distribution under the influence of the model language. Qu'est-ce has been made to function as a relative pronoun object, for example, in the utterance

> Je vais voir qu'est-ce que Bill fait. (6;6) 'I am going to see what Bill is doing.' SF Je vais voir ce que Bill fait.

and as a relative pronoun subject in the utterance

> Il faut que j'essuie qu'est-ce qui coule. (6;8) 'I have to wipe up what is dripping.' SF Il faut que j'essuie ce qui coule.

Qu'est-ce substitutes for the SF stressed form quoi in the utterances

Qu'est-ce qu'il est de? (6;9) 'What is it about?'
SF *De quoi s'agit-il*?

and

Qu'est-ce d'autre? (6;9) 'What else?' *Quoi d'autre*?

2.21.1. *Extension of free morphemes*: *Examples in French utterances*. (English = model language; French = replica language.)

1. C'est une *mieux* cabine que la mienne. (6;5) 'It is a better cabine than mine.' SF *C'est une meilleure cabine que la mienne*.
2. Je vais aller voir *qu'est-ce* que $_{E}$Bill fait. (6;6) 'I am going to see what Bill is doing.' SF *Je vais voir ce que Bill fait*.
3. *Qu'est-ce qu*'il s'appelle? (6;7) 'What is his name?' SF *Comment s'appelle-t-il*?
4. *Qu'est-ce que* tu ris de? (6;7) 'What are you laughing about?' SF *De quoi ris-tu*?
5. C'était l'heure *qu*'ils se couchent. (6;7) 'It was at the time that they go to bed.' SF *C'était l'heure où ils se couchent*.

6. Il faut que j'essuie qu'est-ce qui coule. (6;8) 'I have to wipe up what is dripping.' SF Il faut que j'essuie ce qui coule.

7. Pour déménager le lit, premier on emmène le sommier; après, le matelas. (6;8) 'In order to move the bed, first you take the springs, then the mattress.' SF Pour déménager le lit, premièrement on emmène le sommier; après, le matelas.

8. Ça, c'est une mieux de Marie-Claire. (6;8) 'That is a better one of Marie-Claire.' SF Ça, c'est une meilleure (photographie) de Marie-Claire.

9. Qu'est-ce qu'il est de? (6;9) 'What is it about?' SF De quoi s'agit-il?

10. Qu'est-ce d'autre? (6;9) 'What else?' SF Quoi d'autre?

11. Quand je l'ai premier vue. (6;10) 'When I first saw her.' SF Quand je l'ai vue pour la première fois.

12. C'est pas un mal jeu. (6;10) 'It is not a bad game.' SF Ce n'est pas un mauvais jeu.

13. Tu peux faire qu'est-ce que tu veux. (7;0) 'You can do what you want.' SF Tu peux faire ce que tu veux.

14. *Qu'est-ce* ça pour faire? (7;0) 'What is that for?'
    SF *C'est pour quoi faire*?
15. Marie-Noël *première*, moi après. (7;0) 'Marie-Noël first, then me.' SF *Marie-Noël la première, moi après*.

2.21.2. *Extension of free morphemes: Examples in English utterances*. (French = model language; English = replica language.)

1. You suggested *me* yesterday. (6;8) 'You suggested (that) to me yesterday.' SF *Tu m'as suggéré cela hier*.
2. Can you read *me*? (6;11) 'Can you read to me?'
   SF *Peux-tu me lire*?
3. Mr. Morrison usually opens *me* the door. (7;0)
   'Mr. Morrison usually opens the door for me.'
   SF *D'habitude, Monsieur Morrison m'ouvre la porte*.

2.22. *Extension of bound morphemes*. Weinreich (1953, 33) suggests that the transfer of bound morphemes may be detected in the flowing speech of bilinguals where interference is relatively unchecked.

Observation of the speech of this child revealed only two instances of interference in English, each involving the bound morpheme re-, which may reasonably be analyzed as having been influenced by French. For example, in the utterance

They had to reget her. (6;9) 'They had to call for her a second time.' SF Ils ont dû la rechercher.

the morpheme re- represents, in this particular utterance, an element whose source may very well be French. Once again, the problem of analysis mentioned by Weinreich (1953, 31) arises. Since the prefix in question was realized in English phonemes, the possibility that its application here is a mere extension of accepted English usage, and not due to French influence, must be taken into account. Nevertheless, the fact that this was observed in the speech of a bilingual child who knows the influencing form in the model language seems to justify analyzing the interference as the extension of a bound morpheme for purposes of reinforcement.[9]

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[9] Cf. Il ne faut pas que je mette cette chemise on again. (6;6) 'I mustn't put that shirt on again.' SF Il ne faut pas que je remette cette chemise, where on again assumes the function of the French prefix re-.

One of the functions of the bound morpheme -*ing* in English is that of nominalizing the verbal stem to which it is attached. It is this function of -*ing* which has been extended to its French counterpart -*ant* /ã/ and results in the interference observed in the utterance

Comment veux-tu que j'entende avec tout ce parl*ant*? (6;8) 'How do you expect me to hear with all that talking?' SF *Comment veux-tu que j'entende avec tout ce bavardage*?

2.22.1. *Extension of bound morphemes: Examples in French utterances*. (English = model language; French = replica language.)

1. Comment veux-tu que j'entende avec tout ce parl*ant*? (6;8) 'How do you expect me to hear with all that talking?' SF *Comment veux-tu que j'entende avec tout ce bavardage*?

2.22.2. *Extension of bound morphemes: Examples in English utterances*. (French = model language; English = replica language.)

1. They had to *re*get her. (6;9) 'They had to call for her a second time.' SF *Ils ont dû la rechercher*.
2. It is going to *re*start again. (6;10) 'It is going to start again.' SF *Cela va encore recommencer*.

CHAPTER 3.

CONCLUSIONS AND SUGGESTIONS FOR FUTURE RESEARCH

In drawing conclusions from the analysis of data on interference in the speech of a bilingual who begins learning both languages in infancy, it may be of value to summarize briefly the theoretical basis of the interference process.

A child who is reared as a bilingual may be seen as learning two phonemic codes, including supra-segmental features, and two stocks of morphemes, together with the rules in each language which govern the distribution of these elements.

This learning takes place over a period of years and under varying conditions. If, for example, the child lives most of the time in a cultural environment where one of his languages predominates, the result may be that he will have a primary language and a secondary language.

In actual speech there may be interlingual identification of structures and misapplication of rules resulting in the temporary fulfilling of functions in one language by elements from the other. In such instances it may be said that the child experiences interference.

This study, of course, has concentrated upon the description of interference in speech as opposed to interference in language.

For this particular child, our data lead us to conclude that all her interference remains at the level of speech. Although there is considerable lexical and grammatical interference, there seems to be no merger of lexicons or of grammatical structures. That is to say, there is no linguistic behavior which would indicate that she is in the process of evolving a lexicon and a grammatical structure compounded of English and French elements.

On the other hand, the fact that she experiences no phonological interference in her speech indicates that in the child bilingual there may be a true coexistence of phonological systems.

The structural and non-structural forces governing interference in general are well summarized by Weinreich (1953, 63-67). In relating all interference phenomena to two opposing forces, stimulus and resistance, he is able to break down each one into structural and non-structural factors and provide a theoretical background for the occurrence of interference. Weinreich's underlying principles were posited in an attempt to account for interference resulting in all contact situations where the languages involved are subjected to the most diverse influences.

The relevance of our data to his general theoretical framework is seen as an illustration of its validity and completeness. Our observations suggest one additional structural stimulus which is specifically relevant to an interference situation such as the one described in this study. The fact that the language learning process is still in progress when the speech of a bilingual child is considered is seen as an important stimulus to interference in both languages. Weinreich points out that stability is a factor resisting interference. The fact that the child is in the process of learning the languages means that he lacks this stability in part and hence may be less resistant to interference.

We have stated that owing to certain forces, one of the speech systems will undoubtedly be primary. Nevertheless, both primary and secondary systems can be seen as being in a constant state of change, either progressing toward or receding from adult-monolingual norms of the languages. We consider this child's English to be primary, yet, while interference has been shown to be completely uni-directional (English influence upon French) in word order and stress, the secondary has been able, nevertheless, to influence the primary in the category of gender. Here, for example, different relation patterns in the two languages constitute one stimulus to interference. This type of interference is less likely in a bilingual adult whose primary language is more stable.

The final outcome of the opposing structural stimuli and resistance factors will only be shown by continued observation. It seems reasonable to hypothesize, however, that as control over the primary system becomes more complete, interference from secondary sources will become less frequent.

In considering the non-structural factors which encourage or inhibit interference in the speech of a child, our observations lead us to conclude that the most important stimulus is that of bilingual interlocutors, while the strongest resistance factor is that of monolingual interlocutors. Along with these two main factors are others which seemed to operate in this case. Other stimuli are: 1) permissive attitude toward interference on the part of the parents and 2) greater proficiency in one language. Other resistance factors are: 1) child conformism, 2) systematic use of one language by parents in speaking to the child, and 3) specialized uses of each language (interference is minimized if the child is encouraged to speak about topics in the language most intimately associated with them, e.g., Girl

Scout meetings are talked about in English).

The nature of our suggestions for future research involving bilingualism and interference phenomena in general is drawn from Weinreich (1953, 4): "On an interdisciplinary basis research into language contact achieves increased depth and validity." The necessity of including consideration of non-structural factors in the description of interference phenomena is seen not as an admission of lack of completeness in the descriptive techniques of structural linguistics. Rather, these non-structural factors may be seen as an invitation to other disciplines to cooperate in adding perspective to linguistic investigations aimed at broadening our understanding of human behavior.

Specifically, we would invite the cooperation of psychologists, sociologists and educators, for problems caused by failure to communicate, the end product of much interference, is seen as the province of all these disciplines.

With the help of psychologists, the developmental aspect in linguistic interference could be investigated. Studies similar to this one could be conducted at various age levels, thus providing the data necessary in showing the relationship between interference phenomena and increasing linguistic sophistication and with increasing self-consciousness which becomes more pronounced during adolescence.

In cooperation with sociologists, students of interference in speech and language could add to our understanding of complete or partial biculturalism and its influence upon the primary and secondary languages of the person who may suddenly find himself forced to enter into a new culture structure via an unfamiliar linguistic structure. Sociologists might also help in the measurement of the primary and secondary languages of a bilingual as his cultural environment changes. We attempted in a very crude experiment during this child's visit in France at 7;1 to gain some insight into this problem. In six short tape recordings made at weekly intervals there can be heard a lessening of English influence upon the child's French together with a growing preoccupation with the different cultural atmosphere in which she found herself. Certainly with competent assistance, sophisticated experimental designs could be evolved to study these phenomena.

Lastly, in cooperation with educators and second language teachers we could investigate and correlate interference problems of bilinguals in natural settings of language contact with the artificial situation represented by students in classrooms. The structural and non-structural mechanisms are undoubtedly similar in both situations. When they are better understood, methodologists and teachers may more efficiently work toward neutralizing stimuli to interference and bolstering resistance to interference in second language learning.

A number of general areas for future research are suggested by this study:

What is the relative status of phonological, lexical and grammatical interference? In children, interference in phonology may be more evanescent than either interference in lexicon or grammatical structure. Our observations seem to indicate that it is. If this should prove to be true, what are the structural and non-structural factors which are operative?

To what extent are bilingual children aware of interference? They may be only subconsciously aware of interference in their own speech and in that of other bilinguals. Our data show only one example (1.11;13) of overt behavioral evidence which is clearly self-perceived interference.
At what age do bilingual children become aware of interference in their own speech and in that of other bilinguals?
Are they more aware of interference in the speech of a bilingual whose primary language is the same as theirs or in that of a bilingual whose primary language is their secondary?

Which type of interference, phonological, lexical or grammatical, is noticed first? Is there a positive or negative correlation between perception of interference and other factors both linguistic and non-linguistic such as general intelligence?

How are loan elements integrated grammatically? Our observations suggest tendencies in grammatical interference which can only be verified by the collection and analysis of data from other bilingual children. What are the grammatical classes of loanwords? Do loanwords always fall into an unmarked, masculine gender class? Is it always true that free forms are more susceptible to transfer or extension than bound forms?

Owing to the limited scope and the essentially descriptive nature of this study, care has been taken in generalizing or in drawing conclusions from the data on interference that has been collected. What is needed, perhaps, is that many similar studies be conducted and made available to a researcher who would then be able to determine definite patterns of interference in the speech of bilinguals, their causes and their eventual effect at the level of language.

APPENDIX

The appendix is divided into four sections: A (i) contains a list of French words for which the child has substituted English loanwords; A (ii) contains a list of French words that have been ignored in favor of loanshifts; B (i) contains a list of English words for which French loanwords have been substituted; B (ii) contains a list of English words that have been ignored in favor of loanshifts.

In each section the child's loanword or loanshift is underlined. To help identify the point of contact in the model language, SF and SE are given for the loanshifts.

The words are arranged alphabetically and those marked with an asterisk are assumed not to be in the child's active vocabulary.

Appendix A (i)

		Loanword
1.	avant	before
2.	beurre de cacahuète	peanut butter
3.	bureau	office
4.	Canadiens Français	Canadian French
5.	confiture	jam
6.	cultiver	to grow
7.	de	about
8.	distraire	to distract
9.	écouter	to listen
10.	en désordre	messy
11.	ensemble	together
*12.	excepté	except
13.	faute	mistake
14.	fleur	bloom
15.	fumer	to smoke
16.	gratter	to scratch
17.	loin	far
18.	mort	dead
*19.	profondément	soundly
*20.	sandwich à la viande hâchée	hamburger
*21.	sauce tomate anglaise	catsup
*22.	score	score

23.	signer	*to sign*
24.	spécial	*special*
25.	vers	*toward*
26.	vingt-sept	*twenty-seven*
*27.	Winston	*Winston* (brand of cigarette)

Appendix A (ii)

		Loanshift	Influencing SE
1.	absolument	juste	just
2.	apercevoir, s'en	trouver	to find out
3.	argent	monnaie	money
4.	avancé	grand	high
5.	avant	devant	before
6.	avoir l'air	regarder	to look
7.	commencer à avoir	devenir	to get, become
8.	connaître	savoir	to know
9.	cours	course	course
10.	donner	faire	to make
*11.	disputer, se	avoir des arguments	to have arguments
12.	être	regarder	to look
13.	emmener	prendre	to take
14.	endroit	place	place
*15.	équilibre	balance	balance
16.	faire	aller, prendre	to go, to take
17.	falloir	prendre	to take
18.	gagner	faire	to make
19.	il (est)	l'heure (est)	it (is), the time
20.	laisser pousser	pousser	to grow
*21.	matinée	matin	morning
22.	mauvais	terrible	terrible

23.	numéro	nombre	number
24.	parler de	dire de	to tell about
25.	pays	place	country
*26.	phare	lumière	headlight
27.	poil	cheveu	hair
28.	quitter	partir	to leave, run away
29.	savoir	connaître	to know
30.	tirer une carte	poisson	fish (imperative)
31.	venir de + infinitive	juste + p.p.	just + p.p.
32.	vraiment	maintenant	now

Appendix B (i)

		Loanword
1.	aluminum	aluminium
2.	awful	infâme
3.	banana	banane
4.	care for, to	soigner
5.	cart	carriole
6.	chives	fines herbes
7.	coat	manteau
8.	complain, to	râler, rouspéter
9.	criticize, to	critiquer
10.	dead	mort
11.	dirty	sale
12.	do, to	faire
13.	even (adj.)	ex aequo
14.	funny	drôle
15.	gravy	sauce
16.	have a good time, to	amuser
17.	hungry	faim
18.	lengthened	longue + /nd/
19.	lick, to	lécher
20.	meow, to	miauler
*21.	nightgown	chemise de nuit

*22.	off-key	*faux*
23.	push, to	*pousser*
24.	rag	*chiffon*
25.	range (mountain)	*chaine*
26.	Renault	*Renault*
27.	sing, to	*chanter*
28.	tell, to	*dire*
29.	wash cloth	*gant éponge*
30.	well (adj.)	*guéri*

Appendix B (ii)

		Loanshift	Influencing SF
1.	be, to	*to have*	avoir
2.	button, to	*to shut*	fermer
3.	bring down, to	*to take down*	descendre
4.	boss	*commander*	chef
5.	cool	*fresh*	fraîche
*6.	do errands, to	*to go shopping*	faire des courses
*7.	drab	*sad*	triste
8.	eraser	*gum*	gomme
9.	experiment	*experience*	expérience
10.	flip, to	*to jump*	faire sauter
11.	left-overs	*rest-overs*	restes
12.	look alike, to	*to have the same head*	avoir la même tête
13.	map	*card*	carte
14.	old, to appear	*to be in the Middle Ages*	avoir l'air vieux
15.	one after another	*at the chain*	à la chaine
16.	roll up, to	*to wind up*	remonter
17.	rope	*cord*	corde
18.	scratch, to	*to itch*	gratter
19.	shape	*form*	forme
20.	strong	*hard*	fort
*21.	sturdy	*solid*	solide

22.	teach, to	*to learn*	apprendre, enseigner
23.	travel (by car), to	*to roll*	rouler (en voiture)
24.	water, to	*to nourish*	nourrir

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